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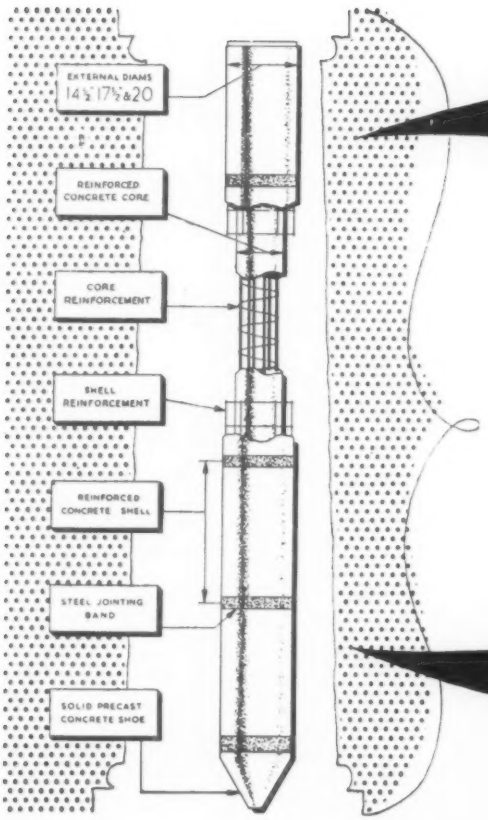

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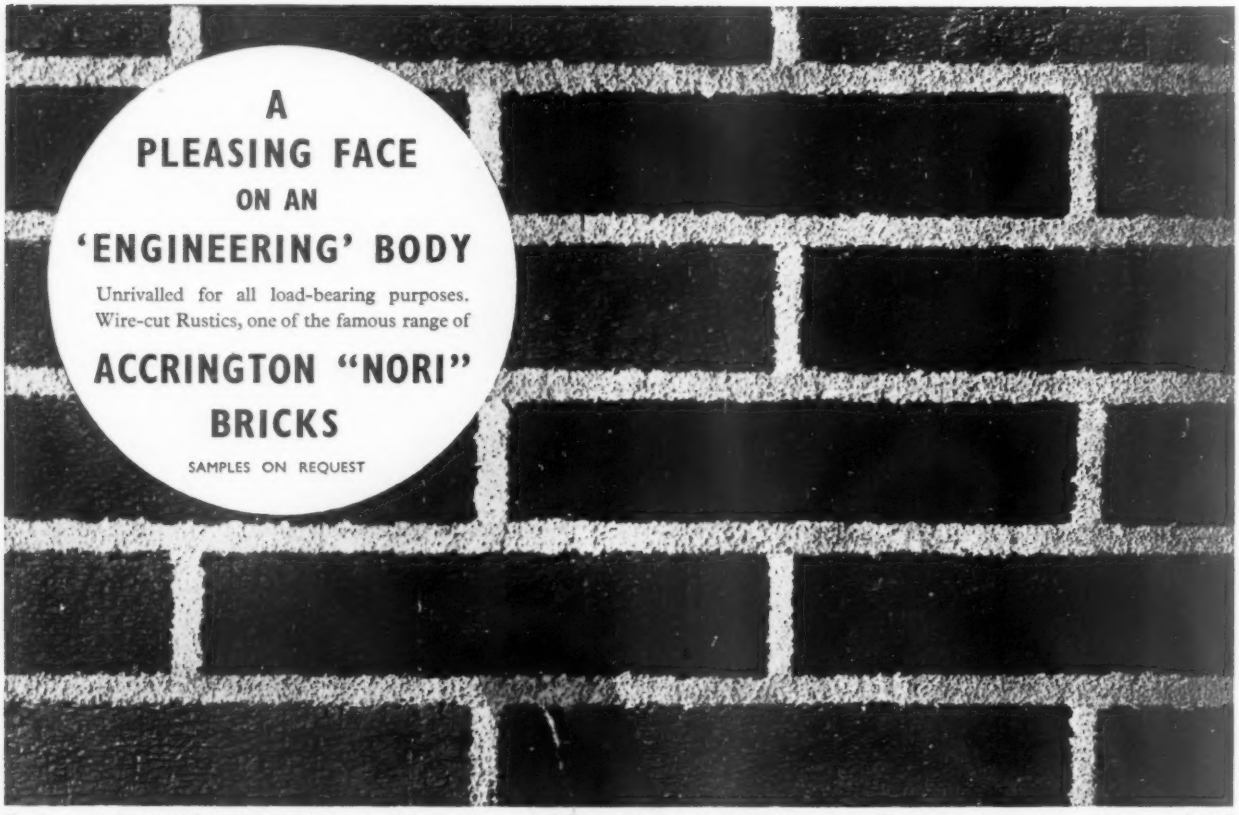

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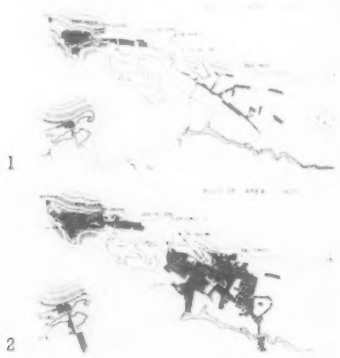
MARGINALIA

Plan for Puerto Rico

Prepared for the Fifth Inter-American Congress of Municipalities, Eduardo Barañano's report *A City is People* traces the urbanistic development of the San Juan area—which is now the metropolitan hub of Puerto Rico—from the time of Ponce de Leon's pioneer settlement to the present Master-plan, and onward to the anticipated planning pattern of the area in 1975. It is thus one of the most extended planning histories of any city in the new world, and not the least interesting fact that emerges is that it may truthfully be called a 'planning-history' as far back as 1521. In that year the pioneer settlement at Caparro was abandoned, and the colony was transferred to a new site on the island of San Juan, laid out with a regular grid plan and a central piazza. Even in 1800 this chess-board layout was only incompletely built up, and the development of the city did not begin to accelerate beyond a leisurely colonial pace until the end of the Nineteenth

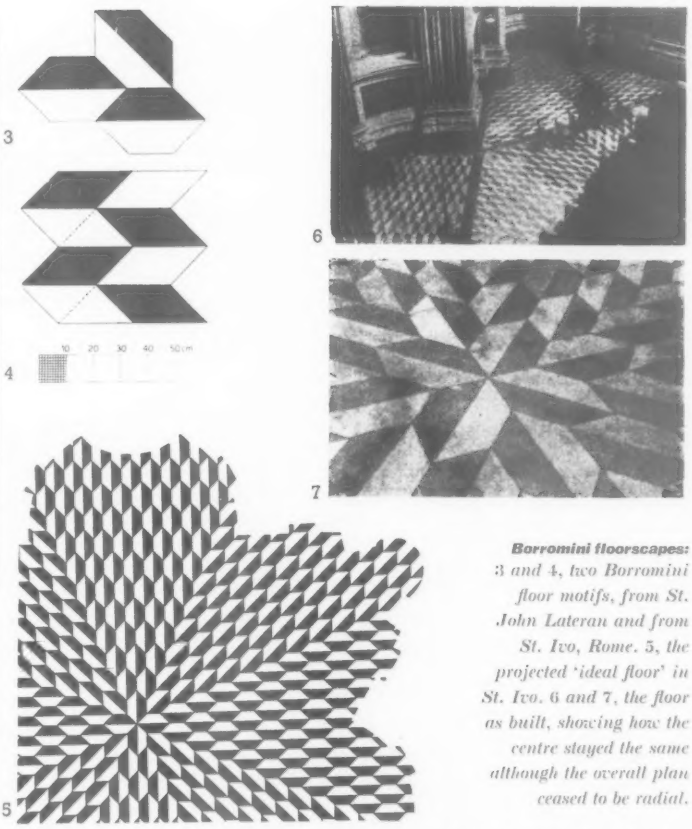


1 2

Century. From then on, the rate of growth has been spectacular and there is no more dramatic contrast in the book than between the maps for 1900 and 1920, in which the built-up area is nearly quadrupled. 1 and 2. Since then it has almost quadrupled again and the Puerto Rico planning board are faced with problems of a truly metropolitan scale.

Borromini Floorscapes

One of the oddities of architectural history that has received a certain amount of casual, conversational attention lately is the apparent irrelevance of Borromini's pavement patterns to the architectonic form of the space they floored. The subject has now been looked at systematically by Leonardo Benevolo (*Quaderno* 13 of the Rome University Institute of Architectural History) in a fascinating study that reveals, firstly, that most of the important Borrominian pavements depend from a single geometrical device, however various their forms, 3 and 4, and, secondly, that the irrelevance is probably deliberate. In an interior like Sant'Ivo, where plan and use of orders break away from Renaissance ideas of visual order such as supported central perspective, it is necessary to fix a view point ideally situated in the centre of the interior. This was intended, 5, and achieved (in spite of alterations, 6) by means of the paving pattern which runs in to a central focal figure, 7, which was more important to Borromini than the very untidy way the pattern butted against the foot of the walls.

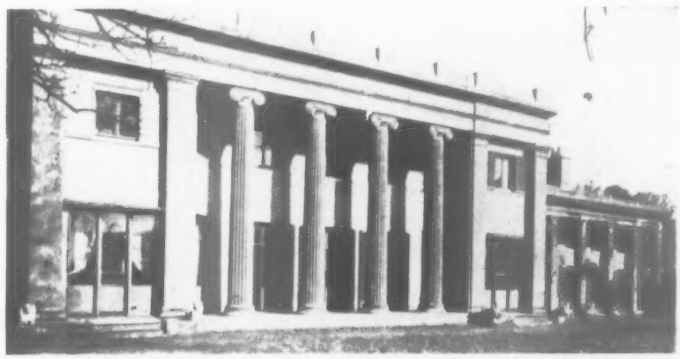


3 4 5 6 7

Borromini floorscapes: *3 and 4, two Borromini floor motifs, from St. John Lateran and from St. Ivo, Rome. 5, the projected 'ideal floor' in St. Ivo. 6 and 7, the floor as built, showing how the centre stayed the same although the overall plan ceased to be radial.*

N.B.R.

The yearly National Buildings Record reports have come to mean one thing—a quick rush to the photographs with the anxious exclamation 'What's gone?' It really does seem as though the post-war toll of country houses is getting less—though, of course, there are progressively less and less country houses left to demolish. This year, the most ominous note is that four Chichester churches are going to be 'demolished or adapted to other uses.' Of the houses, the final decay of Belhus, Essex (Tudor and pre-Walpole Sanderson Miller) was a foregone conclusion—but why couldn't it have been unroofed and left as a ruin? The LCC estate nearby badly needs every foil it can get. Rushbrooke, Suffolk, is still intact, though doomed, with farm carts in the courtyard and dry rot in every timber—another clear case for leaving as a ruin, not demolishing altogether. The owners of these two houses were respectively the LCC and the Rothschild family: one would think that neither was depending on the demolition value of the bricks to balance their budget. Of the other houses, Bure Homage, near Christchurch, Hants, 8, should obviously not have gone; its prime fault was evidently that of being built far too near the dread date 1840 (actually 1835, by John Davies) after which nothing is likely to be preserved. We don't want a Society for Preserving Late-Herbert-Baker: but we do need some organization to look after the best buildings in every style.



8, *Bure Homage, Hants, demolished in* 1956. *15th Annual Report, N.B.R.*

CORRESPONDENCE

To the Editors,

SIRS,—Nairobi has in the past suffered not a little from the 'authoritative' views and advice of transient visitors: too many people stay a few weeks in Kenya and solve our problems in a best-seller. Now we have a new irritant in the form taken by Mr. Roger Johnson's exposé of our 'prairie planning'—the selection of out-of-date facts and photographs with which to demolish a planning scheme which exists only in Mr. Johnson's imagination.

The selection of flat, featureless plain for a new airport at Embakasi, some nine miles from the city, has provided your contributor with a photograph which lends credulity to his description of the 'unreclaimed wilderness without'—an unworthy term for the very many beautiful and well-developed farming and residential districts outside the city's boundaries.

We are still *building* a city: it is at present little more than half-developed, and in the areas of City Square depicted, it is only 25 per cent developed. The intimate character which Mr. Johnson desires for our City Square is taken care of in our plans, but cannot be shown by air photographs of an incomplete centre taken two years ago. Your readers should be reminded that £8 million worth of *private* building is being approved annually in the city: this excludes public (Government, High Commission and City Council) construction. Incidentally, Nairobi's population is given in your article as 100,000: it is in fact approximately 215,000.

As in cities throughout the world, Nairobi's town planning decisions are made by elected Councillors. It is incorrect to suggest that decisions of Council are not based on advice from technical experts.

The legislative pattern behind development of the central area of Nairobi, which is in Crown ownership, does not depend on watertight zoning. A detailed development plan has been prepared and approved by the Crown and the City Council. The basic pattern is not in the Beaux-Arts affectation; its aim is a compact urban setting contrasting with attractively planted open spaces. We inherited a legacy, despite the youth of the city, of patternless main streets conforming to the old routes of a township begun in the frontier spirit, but as vertical development takes place we shall achieve a well-proportioned urban setting. We envisage cafés overlooking secluded, shaded walks designed for shopping and leisure in close proximity to main streets, and this must be done with full regard for our car-parking and transport problems. We have an exceptionally high car population—the private car will be the most important mode of travel for Nairobi shoppers for many years to come.

The majority of car parks are planned on the fringe of the central area adjoining radial highways, thus preserving a more closely-knit centre and avoiding the necessity for the long-term car parker using the central area roads. These car parks will be planted with shade trees.

The core of the new area, not shown in your photographs, is planned as an open area, and a vista from the flat town centre to wooded slopes will be preserved. This open area will be developed with shade trees, walks, lakes and secluded picnic spots because many Nairobi office workers prefer to take a picnic lunch in the open air instead of joining the traffic stream to the out-

skirts of the city. This park-like centre will be readily accessible to pedestrians from all parts of the commercial area.

Present and past experience shows that to permit workshops for furniture makers, tinsmiths and shoe repairers as an integral part of the shopping centres would result in a deterioration in retail trade and would inevitably breed slums.

An acute shortage of staff during the last few years has prevented the preparation of desirable publicity material on plans for our city centre, and this lack of publicity perhaps accounts for the misconceptions on which your contributor has based an academic study. The City Planning Office is able to indicate by plans and models to anyone interested the form in which the city will develop.

Yours, etc.

JAMES SMART,
Public Relations Officer.
Town Hall, Nairobi.

To the Editors,

SIRS,—Mr. R. Johnson, in his article 'Prairie Planning of Nairobi,' suggests development schemes more valid for towns with an English history and background. This is all very well for Coventry, a concentrated, over congested town, but bears little relevance to a Central African town. Mr. Johnson does not attempt to understand the history of such a town. It is as if we attempted to replan the City of London without reference to its special history and the real facts of its present condition.

The feeling of spaciousness in Central African cities is mainly given by the wide streets, but these are the outcome of necessity, as street widths were governed by the turning circle of a waggon with full span of oxen—this being the transport of the pioneers. Business properties were set up on either side of the streets and these boundaries remain today.

Early properties were large and easily obtained and with development of the city itself, expansion naturally took horizontal rather than vertical lines. It must also be remembered that many-storied buildings were not necessary at this time and also impossible for these parts where materials were expensive and hard to come by.

I would have thought that a developing, spread-out city would offer far more possibilities for future planning than the existing congested city and of these there are many examples in England where re-planning is being done with the sole intention of creating space. The wide streets of our Central African cities at least solve many a parking problem and also, with contemporary buildings reaching upwards to the sky, the daylight problem to the streets between is not as troublesome as it has been in Eastern cities. Given time, Nairobi will develop beyond recognition—at its present stage it is only a baby with its future life being planned by capable hands.

Comment on Mr. Johnson's sketch for an integrated townscape is difficult. What can and can't be done in the way of racial mixing is a very open question nowadays. But, if Mr. Johnson cares to re-read his pretty little description of the view of life that might go on in his new scheme, he will find it should be spoken in broad American as the sun sets at the end of the travelogue film.

Yours, etc.

ROY GARRATT.

Salisbury,
Southern Rhodesia.

[*Mr. Roger Johnson replies:*—Having lived in Kenya for 3 years I can understand Mr. Smart's irritation with 'authoritative' views of transient visitors. I can understand, too, that in his official position he must present Nairobi in its most favourable light. I would assure him that the object of the article was not to denigrate Nairobi: one only criticizes what one cares about, and in this case the criticism stemmed as much from the disappointment at seeing a place of definite character grow into a typical Afro-American city with so few redeeming features, as from the general points expressed in the article.

I wish the planning scheme did, as Mr. Smart asserts, exist only in my imagination. If this is so, a radically new plan must have emerged in the last 18 months. The population figures, 120,000 in the 1949 census and 215,000 today, and the suggestion that 2-year-old photographs are not valid, merely emphasize the rate of growth. Today, there are a few more large blocks in the City Square, but they are hardly likely to change its overall character. The idea of a pedestrian core of high density and with qualities of urbanity has been missed by Mr. Smart who mentions, as a core, an area which will, in effect, be a park.

The article attacked, amongst other things, the geometrical planning of wide-open layouts within cities, the lack of a humane townscape, and the domination of the motor-vehicle in the city centres. Mr. Smart's official defence sounds complacently plausible and will no doubt satisfy all those who believe that all is for the best in these developing new cities of Africa. I beg to remain amongst the unconvinced.

In reply to Mr. Garratt—The special plea of the Nairobi article was that we should try to create a sense of urbanity, rather than an agglomeration of buildings which can neither reflect the breadth of the African landscape, even if it were desirable, nor provide the urbane pleasures and convenience that a city should provide.

Like Mr. Garratt, I do not agree with the superimposing of the solution of one place or country indiscriminately on to another; this has been done in too many cities in Africa. I do believe that some of the methods of achieving this sense of urbanity can be applied to many parts of the world and be equally valid.]

Joseph Emberton, 1889-1956

Joseph Emberton, who died at the age of 66 last November, designed a number of buildings which are among the best in the style of the 1930's, notably Simpson's store in Piccadilly (1936) and the HMV shop in Oxford Street (1939). But if one tries to look at his work as future historians of the Modern Movement in England will, his two most important works are no doubt Olympia and the Royal Corinthian Yacht Club at Burnham-on-Crouch, the one designed in 1929 and illustrated in THE ARCHITECTURAL REVIEW in 1930 (vol. 67), the other built in 1931 and illustrated in 1932 (vol. 72). Their significance is not of the same kind. Olympia, blamed by Reilly for looking like the heaviest concrete while being of brick, represents aesthetically the climax of the influence on England of the style of the Dutch of Dudok's generation; massive walls, arbitrarily arranged windows in bands of excessive lowness; some angular ornament of a queer un-English type. The position of the building in Emberton's career is not without interest.

He had, after some training in his native Staffordshire and at the Royal College of Art, and after some work under Trehearne and Norman on their showy Kingsway buildings, met Thomas Tait and joined his firm, i.e., Sir John Burnet's firm. He worked on Adelaide House, one of the first unfussy, un-period office buildings of London. The reaction to this experience is the office building for Austin Reed's in Red Lion Square, designed by Emberton in 1925 in partnership with P. J. Westwood. Tait then, for a short time, went further than Emberton in compliance with the new ideas from the Continent. His houses for Crittall's at Silver End (AR vol. 64, 1928) are white cubes. But then, contemporaneously with Emberton, it seems, Tait also discovered the Dutch. Dudok became his guiding star (Masonic Hospital, Ravenscourt Park, AR vol. 74, 1933, Curzon Cinema, etc.). But whereas Emberton's first designs for the club at Burnham (AR vol. 67, 1930, p. 317) were purely Dutch, with the typical raked joints of the horizontal bands, he changed his mind and style immediately after, and the executed building is the first in England to register the change to a great lightness and transparency which had taken place with international consequences when Asplund designed the Stockholm Exhibition of 1930. Had Emberton seen it? In any case plenty of illustrations were available (AR vol. 68, Aug., 1930).

The club still makes a very good show today. It has not aged in its design at all, and, in spite of the disappointing quality of some of Emberton's more recent building, such as the high flats at Finsbury (1954), establish him as one of the dozen or so of English architects of his generation who will not sink into anonymity.

Architect of the School at High Wycombe (pages 93-97), **Denis Clarke Hall** was born in 1910 and started his own practice in 1937; since 1946 his contracts have amounted to £3,858,000.

Architects of the House at Cookham (pages 115-116), **Planning Design Team** (born 1951) whose partners are Malcolm Andrews, Alan Emmerson, Julian Keable, Harley Sherlock and Harry Spencer, offspring of the AA School of Architecture and the policy of Robert Jordan. Education: through group work and the rewriting of school programmes. First job (unbuilt):

£20,000, canteen and store for Messrs. Watliff (Commutators) Ltd.; second job (built): contract sum £20, 'sun window' for A. O. Hinchcliffe, Esq. On leaving school, one partner was employed on the work brought in by the other four. The latter worked in a wide variety of jobs and types of office, the conscious policy being to gain experience in every possible field. Incomes were shared. A pair of houses large enough to provide a flat for each partner, and office space for group work were bought in Canonbury. In this way close touch was kept between members working 'in' and members working 'out.' In 1955 Harry Spence left the group to start his own practice. Now all four remaining members are fully employed in the practice.

Architect of the House at Sea (pages 117-118), **Nevill Tufnell** was educated at Eton and Trinity Cambridge (Architectural School) and entered the RA school in 1950. Was briefly with Prof. Richardson's firm but did not think much of London as a place to work in, and tried

designing sailboats with fancy sails but this was too expensive. Worked at times for Carter and Salaman of Petersfield and went to Cambridge in 1955 to work for Hughes and Bicknell. Hobbies are cars, painting, holidays abroad in the sun and do-it-yourself-ing.

ACKNOWLEDGMENTS

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THE ARCHITECTURAL REVIEW

Volume 121 Number 721 February 1957

This Month's Cover, crammed with saleable goods like the facades and counters of the shops and stalls that appear in it, reinforces a point of fundamental importance in Herbert Tayler's article on shops (pp. 98-104)—that there exists a basic vernacular tradition, nation-wide in its distribution, of treating the goods to be sold as more important than the shop they are sold in, a folk-poetry of insistent repetition and cornucopial plenty. This tradition reaches the level of conscious architectural design only, at present, in self-service stores, but its extension and development into other fields of selling might well be the foundation of a more healthy body of shop design.

81 **Marginalia**

82 **Correspondence**

84 **Frontispiece**

85 **Ornament and Crime** *by Reyner Banham* By now, the idea of an undecorated architecture has acquired so nearly the status of a moral absolute, or law of nature, that it is difficult to believe that it is more or less the work of a single mind. Whatever might have been said before in disapproval of certain kinds of ornament, it was Adolf Loos, the Viennese essayist and architect of the first quarter of this century, who first propounded a positive and encyclical condemnation of decoration in architecture and product design—and so forcefully phrased that it biased the whole Modern Movement against decoration. This anathema was propounded in an essay entitled *Ornament and Crime*, published in 1908, and Mr. Banham attempts, for the first time in the half-century that its ideas have been in circulation, a critical study of the essay, its argument, its historical setting, and the mechanisms by which it became known to the Modern Movement as a whole.

89 **School at West Bromwich:** *Architects, Richard Sheppard and Partners.*

93 **School at High Wycombe:** *Architect, Denis Clarke Hall.*

98 **Shops** *by Herbert Tayler* There are no historical shop interiors—they are one of the most transient types of design in which an architect may be employed, and their exteriors are only a little more permanent. Yet shops, as such, are as old and as universal as urban civilization, and have become one of the most influential showcases of the designer's art. But the encounter between art and commerce is not always visually or commercially successful. Mr. Tayler surveys the present state of this encounter, the revolution in shop design that has followed the war, the disparity in design between different classes of shops, the time-lag between metropolis and provinces, the failure of clients to extract optimum performance from their architects, the frequent tendency of architects to impose a style on the merchandising process, rather than extracting a style from the goods and the sales technique. The aim, he proposes, should be to give shops a functional, varied, realistic and appropriate character, within the modern style; to create a commercial vernacular, whose provincial manifestations should be the basis, not the debasement, of shop design.

105 There follows an illustrated commentary on some of the best contemporary shops *by Ian Hodgson.* Whether it is for good or evil, the West End of London contains the shops that set the style for the rest of the country, and Mr. Hodgson's study of recent examples of shop design concentrates mainly on this area. Even here he finds that a good deal is still wanting, in spite of the excellent work that has been done by a few architects for a few firms of retailers, travel agents and so forth.

112 **Bohemian Hawksmoor** *by Nikolaus Pevsner* In spite of the fact that we are usually right when we think of Continental examples of Gothic Revivalism as signs of English influence at work, there are a few isolated and independent Revivalists working ahead of the spread of English tastes. One of the most striking and original of these pioneers was Santini, whose characteristic works in Bohemia date from the first quarter of the eighteenth century, who was born a little after Hawksmoor and Vanbrugh, and died in the same year as Wren. Dr. Pevsner examines the nature of Santini's work and its sources both in late German Gothic and in the patterns to be found in Baroque plaster work, observes its relations with the rise of the Rococo, but finds it an historical freak, without followers of any significance, and without any appreciable influence on the rise of a more general German Gothic taste some thirty years after his death.

115 **House at Cookham, Berks.:** *Architects, Planning Design Team.*

117 **House at Seal, Kent:** *Architect, Nevill Tufnell.*

119 **House at Grantham:** *Architects, Gordon and Ursula Bowyer.*

121 **The Early Works of Soane** *by Dorothy Stroud* The study and evaluation of the architecture of Sir John Soane have both suffered from the fact that so little of his work has survived. However, a number of his early works have recently been identified or discovered, and it is possible now to form some kind of picture of his output from the time of his unfortunate encounter with the Bishop of Derry to his installation as architect to the Bank of England. As Miss Stroud points out, it is only in one of the designs for gateways at Langley Park that any promises of his highly personal mature style may be observed, though great originality and professional competence in the employment of established styles is apparent from almost the earliest identifiable works from his pencil.

123 **Current Architecture**

Miscellany

127 **History**

128 **Exhibitions**

130 **Architecture**

130 **Travel**

133 **Outrage**

135 **Books**

Skill

137 **Design Review: Household Storage**

141 **External Pavings** *by Robert Maguire* Now that conscious design of the ground on which we tread—Floorscape, that is—has re-established itself as part of the architect's interest and responsibility, the need arises to survey the range of ready-made and *in situ* materials available. In this, the first of two articles on the subject, Mr. Maguire surveys the types of flags, tiles, setts, and so forth, at the designer's disposal, and underlines the fact that the choice is not between sympathetic traditional materials, and unpleasant modern ones, but that within the range of economically practicable concrete products there is already a wide choice of admirable types and surfaces.

148 **The Industry** 148 **Contractors, etc.**

Authors: *Herbert Tayler*, F.R.I.B.A.; born in Java, of Scots and Dutch parents; both grandfathers engineers. Travelled much *before* training at A.A. School (a good arrangement) as well as after. In private practice now with David Green in Suffolk and London. Loves music and gardening and is an Associate of the I.L.A.; has struggled with partner against subtopia for ten years in own housing work before it became fashionable. *Ian Hodgson*, architect: born 1927 at Upper Norwood, 5th of 11 children of enterprising if consequently penurious parents: began work at 14 in reinforced concrete engineers' office and took to architecture in 1947 with various jobs between ranging from solicitor's clerk to schoolmaster: qualified part-time while working for Professor R. D. Russell, mainly on interior and furniture design: married, 1949, architect Uta Pevsner, has three children: too busy supporting and helping to rear family to have hobbies but enjoying it.

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THE ARCHITECTURAL REVIEW

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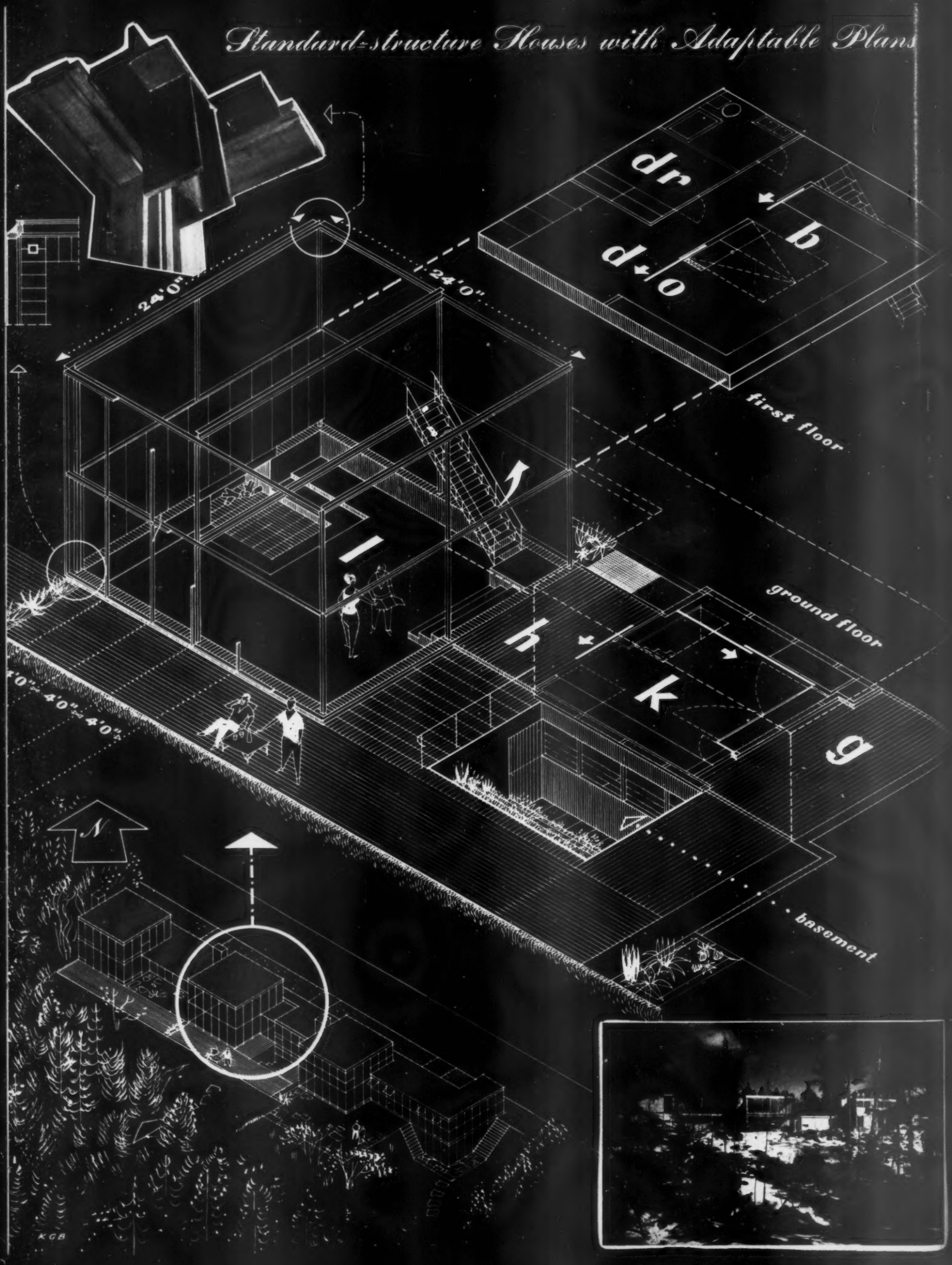
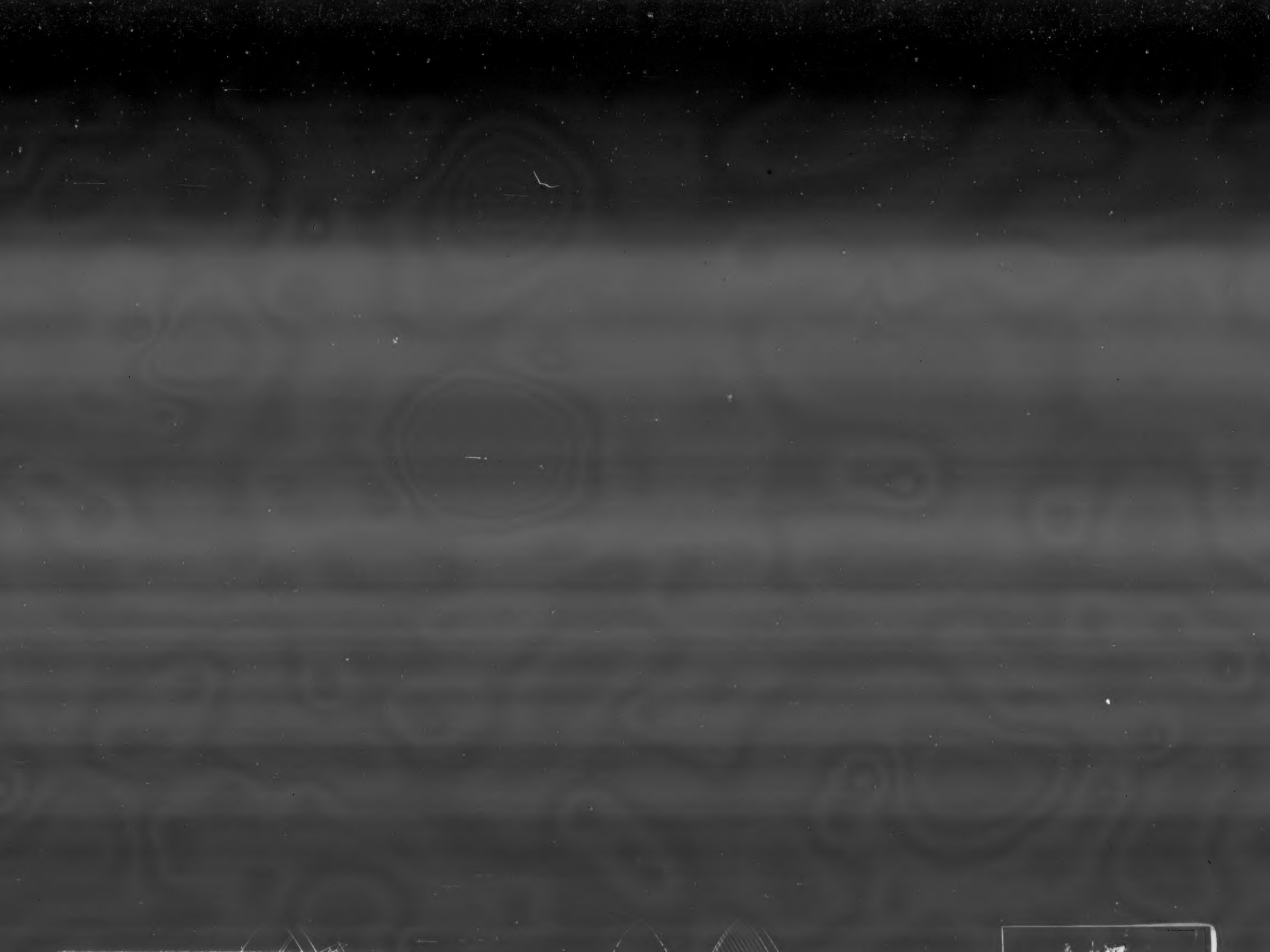
FIVE SHILLINGS

Standard-structure Houses with Adaptable Plans





To combine variable use with standard structures has long been one of the vital problems of modern architecture, and this perennial dialogue between structure and function has found a distinguished solution in these three houses near Oslo by Korsmö and Norberg-Schulz, analysed diagrammatically by Kenneth Browne. *The centre house, occupied by Arne Korsmö and his wife, utilizes the spaces provided by the standard frame as follows: g, garage; k, dual-purpose kitchen-workshop (with permanent workshop in basement below); h, hall, also serving as stage, when l, living room, becomes an auditorium; dr, dressing room, serving b, bedroom, which becomes part of d-o, drawing office, when beds are folded away. This ingenious arrangement by no means exhausts the possibilities of the frame, and variants are discussed in a note on page 130.*

Reyner Banham

ORNAMENT AND CRIME

THE DECISIVE CONTRIBUTION OF ADOLF LOOS

Everyone knows that Modern Architecture is undecorated. This concept is the layman's recognition check: flat roof, big windows, no decoration. It is also one of the great seminal half-truths that have now become rules of design morality. But how did this state of affairs come about? Did the spirit of the times command? Did the *Zeitgeist*, like a baroque angel, swoop down to stay a thousand pencils as they held poised above the beginning of an Ionic volute or an Art Nouveau lily?

In this particular case we can put these art-historical miasmas back where they belong, and recognize that they are the cloaks of ignorance. Ideas do not bumble about in the abstract, looking for somewhere to settle. They are formulated in the minds of men, and communicated from man to man. The *Zeitgeist* is primarily a record of our ignorance of the communications that took place in any particular epoch—grandiose statements of the order of 'Perspective was not the discovery of any one person, it was the expression of the whole era,' are simply a roundabout way of admitting that we don't know to whom Brunelleschi talked before he talked to Manetti, and that we would rather not go to the labour of drawing up the family tree of personal contacts that runs from Brunelleschi to all the great perspectivists of the Quattrocento.

We are a bit too glib in presupposing diffuse cultural forces that act upon creative minds like the weather or the common cold, and a little too chary of conceding that some one specific person at some determined (if no longer determinable) moment must have been the first to conceive of central perspective, the undulating facade, architecture without ornament.

To us, now, the idea of an undecorated architecture has so nearly the status of a

Mosaic commandment, to be flouted in practice but never queried in theory, that it is difficult to conceive of it as the thought of one man, and much easier to refer it back to the collective unconscious of the pioneers of Modern design. But the surviving literary evidence from the first twenty years of this century does not reveal any widely diffused hostility to decoration. There were ideas like Significant Form that were later to reinforce such a hostility when it had taken hold; there was a certain suspicion of past styles of decoration; there was even a certain indifference to ornament, articulated by Geoffrey Scott and earlier by Auguste Choisy, as the feeling that ornament was something that one might do without if one's command of formal composition was sufficiently sure. But only in the writings of one man, the Viennese architect Adolf Loos, will one find a positive anathema on ornament.

Did Adolf Loos, then, beat ornament single-handed? He certainly thought so himself, for he wrote in the introduction to his book *Trotzdem*, published in 1930, 'I have emerged victorious from my thirty years of struggle. I have freed mankind from superfluous ornament.' This is an uncommonly big claim even for a big-talking movement like Modern Architecture, and it needs scrutiny. But scrutiny will be facilitated if we look first at the weapons with which he fought. The example of his buildings was not decisive—their exteriors are sometimes, but not always, plain; the interiors, though devoid of decorative objects for the most part, exhibit almost a milliner's sense of the decorative qualities of wood and marble, fairface brick, turkey carpets, glass and metal. His doughtiest blows at ornament were struck in print, and the doughtiest of all in one single essay, published in 1908.

Its title is an eye-blacker for a start, *Ornament und Verbrechen:* Ornament and Crime. It brings the reader up with a jerk and sets his stock responses jangling. It is probably the first appearance of that pugnacious moral tone that was to characterize the writings of the Twenties and Thirties, and the opening paragraphs fully sustain this bourgeois-blasting, damn-your-delicate-feelings attitude:

> The human embryo goes through the whole history of animal evolution in its mother's womb, and when a child is born his sensory impressions are those of a puppy. His childhood takes him through the stages of human progress; at the age of two he is a Papuan savage, at four he has caught up with the Teutonic tribesmen. At six he is level with Socrates, and at eight with Voltaire. At this age he learns to distinguish violet, the colour that the eighteenth century discovered—before then violets were blue and tyrian was red. Physicists can already point out colours that they have named, but that only later generations will be able to distinguish.
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> Children are amoral, and so, for us, are Papuans. If a Papuan slaughters his enemies and eats them, that doesn't make him a criminal. But if a modern man kills someone and eats him, he must be either a criminal or a degenerate. Papuans tattoo their skins, decorate their boats, their oars—everything they can get their hands on. But a modern man who tattoos himself is either a criminal or a degenerate. Why, there are prisons where eighty per cent of the convicts are tattooed, and tattooed men who are not in prison are either latent criminals or degenerate aristocrats. When a tattoed man dies at liberty, it simply means that he hasn't had time to commit his crime.
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> The urge to ornament oneself, and everything else within reach, is the father of pictorial art. It is the baby-talk of painting. All art is erotic.
>
> The first ornament born, the cross, is of erotic origin. The earliest art-work, the first creative act of the earliest artist, was smudged on the cave wall to let off emotional steam. A horizontal stroke, the reclining woman; a vertical stroke, the man who transfixes her. The man who did this felt the same impulse as Beethoven, was in the same heaven of delight as Beethoven composing the Ninth.
>
> But the man of our own times who smudges erotic symbols on walls is either a criminal or a degenerate. It is clear that this violent impulse might seize degenerate individuals in even the most advanced cultures, but in general one can grade the cultures of different peoples by the extent to which lavatory walls are drawn upon. With children this is a natural condition, their first artistic expressions are erotic scribblings on the nursery wall. But what is natural to children and Papuan savages is a symptom of degeneracy in modern man. I have evolved the following maxim, and present it to the world: The evolution of culture marches with the elimination of ornament from useful objects.

This is still a tremendous performance nearly a half-century after its composition. . . . But it won't stand re-reading. This is *Schlagobers-Philosophie*, that whisks up into an exciting dish on the café table, and then collapses as you look at it, like a cooling soufflé. It is not a reasoned argument but a succession of fast-spieling double-takes and non-sequiturs holding together a precarious rally of clouds of witness—café-Freudianism, café-anthropology, café-criminology. The testimonies of these various witnesses don't really support one another, but they must have appeared convincing at the time, partly because they were all new and hot, but more especially for an overriding reason that will be discussed later. But Loos has no intention of giving the reader time to pick the argument to pieces, he wants to detail the poor response that the world made when presented with his 'maxim.'

> I had thought with this rule to bring a new joy into the world, but no-one has thanked me for it. Rather, people have pulled a long face and hung their heads. What oppressed them in my discovery was the proposition that no new ornament could be invented. Were we, men of the nineteenth century, to be incapable of doing what the simplest negro, the men of every previous age or nation, had been able to do?

'Men of the nineteenth century'—this must mean that the maxim had been enunciated in the Nineties originally, and at that time, with Viennese Art Nouveau flourishing like a rain-forest, it must have sounded more mad than sad. Loos, however, followed it up with Old Testament rhetoric.

> Then I said: Weep not. Behold the true greatness of our age,

that it can no longer bring forth ornament. We have vanquished decoration and broken through into an ornamentless world.

Behold. The time is at hand and fulfilment awaits us. Soon the pavements of our cities shall glisten like marble; Like Zion, the holy city, the Capital of Heaven.*

But no-one thanked him. What had gone wrong? Almost inevitably, he alleges an Imperialist plot: Certain reactionaries rejected his prophecies, the Austrian state continued to support and subsidize a reign of ornamental terror, retarding progress, making people wear felt boots instead of rational footwear, because it had found that a backward people was easier to govern. Some citizens of the Austro-Hungarian Empire were so backward that they had not yet been converted to Christianity, would have been looked down on by the Goths and Visigoths. Happy the country that has no such stragglers! Happy America!

America for Loos, as for so many of the pioneers, was the promised land of technology. Not a word about the Indian reservations or the hookworm belt, nor the coloured slums of the Northern cities, which he must have seen on his visit to the U.S. Americans were his ideal Twentieth Century men and

When two men live side by side, all things else being equal, the twentieth-century man gets richer, the eighteenth-century man gets poorer, assuming that each lives according to his inclinations, for the man of the twentieth century can cover his needs with smaller outlay, and thus make savings.

The vegetable that tastes good to him when simply boiled in water and glazed with butter, is only palatable to the other when served with honey and nuts, after the cook has slaved over it for hours. Decorated plates are expensive, whereas the plain white crocks that modern man prefers are cheap. One saves, the other overspends, and it is the same with nations. Woe to a people that hangs back from cultural progress. The English get richer, and we get poorer.

What would he have made of a Cadillac economy, where undecorated goods are apt to be in an inaccessible luxury price-bracket, while ornamental products are within the reach of all but the most depressed strata of society? One can guess, for a few paragraphs later he sketches in a satirical draft of a high-obsolescence economy, where everything is highly decorated and thrown away almost as soon as it is made, and everyone swims in wealth and well-being. But it is only a satirical view of a vulgar 'Land of Cockayne.' He is not envisaging it as a way of life that need be taken seriously, nor one that he wants any part in. He exhibits here that peasant streak so common in reformist aesthetes, and can see objects of use only as possessions whose market value must be maintained, not as equipment to be discarded when technically obsolete. Not for him the scrapping economy implicit in Futurism's 'Every generation its own house,' or Le Corbusier's 'On jette, on remplace.' In fairness one should note that he could accept expendability in trashy materials: 'I can accept papier maché in an artists' club, run up in a couple of days, torn down when the exhibition is over. But to play ducks and drakes with golden sovereigns, to use banknotes to light cigars, to crush pearls and drink them—*das wirkt unästhetisch.*'

But in skipping on thus far we have overpassed the vital paragraph that holds the historical key to 'Ornament and Crime,' and explains the instance of its writing and the immediate power of conviction that it undoubtedly possessed.

Now that ornament is no longer organically integrated into our culture, it has ceased to be a valid expression of that culture. The ornament that is designed to-day has no relevance to ourselves, to mankind at large, nor to the ordering of the cosmos. It is unprogressive and uncreative.

What has happened to the ornamental work of Otto Eckmann? What has happened to van de Velde? The artist used to stand for health and strength, at the pinnacle of humanity, but the modern ornamentalist is either a cultural laggard or a pathological case. He himself is forced to disown his own work after three years. His products are already unbearable to cultured persons now, and will become so to others in a little time. Where are now the works of Eckmann, and where will those of Olbrich be ten years from now? Modern ornament has neither forbears nor descendants, no past and no future. It may be received with joy by uncultured folk, to whom the true greatness of our time is a book with seven seals, but even by them in a short time forgot.

That fixes him in time. Where other men of his day may have had an uneasy feeling that Art Nouveau was losing its impetus, he had a personal quarrel with Hoffmann and the *Wiener Sezession*, and any stick would serve to beat the *Wiener Werkstätte*. For all that, it took courage—truculence even—to launch these personal attacks at a time when the world reputation of both *Sezession* and *Werkstätte* were at their height, and had made Vienna a centre of artistic pilgrimage. On the other hand, the crack-up was already signalled. Long-witted operators like Peter Behrens were quietly sloughing off Art Nouveau, and that symptomatic young person Charles Edouard Jeanneret was, in the very year of 'Ornament and Crime,' telling Josef Hoffmann he could keep his *Werkstätte*, recognizing that it was no longer creative. In articulating his quarrel with the *Sezession*, Loos was polarizing the attitude of a generation to decoration, as surely as Marinetti in the next few months was to polarize its attitude to machinery. In a time of decision his was a decisive gesture.

The decision taken, his position was clear: all forms of cultural regression are crime and waste; ornament is cultural regression and must therefore be a waste and a crime; worse than that, sex-crime. With his position so clearly given, and in such forthright terms, it comes as a further shock to find him hedging the issue with soft options.

I address myself particularly to those natural aristocrats who stand at the summit of human progress, and yet have the deepest understanding of the needs and impulses of lesser men—the Kaffir who weaves an ornament into his cloth after a receipt so subtle that it is only seen when the whole is unpicked; the Persian knotting his rugs; the Slovak peasant working her lace; the grannie who works wonders with crochet-hook, beads and silk—he understands them and lets them alone, for these are consecrated hours in which they work. A vulgar revolutionary might burst in on them and say 'that's a lot of rubbish,' just as he might shout to old ladies performing their Stations of the Cross 'There is no God.' But under an aristocracy even an atheist takes off his hat when passing a church.

Then he goes on to relate a touching parable of the dismay of his shoemaker on being asked to make a pair of utterly plain shoes, even at a third over the price of the normally-ornamented model. Ornament, he says, is the culture of the poor, and we—aristocrats who have Beethoven and Wagner—have no right to deprive them of it. But a cultured man who goes to hear the Ninth Symphony and sits down to design a sampler is either a show-off or a degenerate.

* Depressingly enough, Loos's views on clothing were entirely consistent with his views on architecture. His ideal was *der Mann im Overall*, so his Holy City would have looked rather like a set for *1984*.

> The death of ornament has brought the other arts to unbelievable heights. The symphonies of Beethoven could never have been written by a man who had to wear velvet, silk and lace. Anyone who goes around to-day in a velvet coat is no artist, but a clown or a housepainter. Wandering tribesmen wore bright colours to distinguish themselves from one another, but we have grown subtler and more refined—we moderns wear our clothes as a mask.
>
> So unbelievably powerful is a modern personality that it can no longer be expressed through clothing. Freedom from ornament is a sign of mental strength, and modern man may use the ornament of historic and exotic cultures at his discretion, but his own inventive talents are reserved and concentrated on other things.

In spite of the slight crescendo for the coda this is still a stingless tail, all passion spent. Nevertheless, 'Ornament and Crime' is still good fighting talk. In its author's own eyes it ranks with *Architektur*, written a year later, as one of his two prime writings, but not necessarily as his unique blow against ornament. To revert to the introduction to *Trotzdem*, we find that it continues 'Ornament was once synonymous with beautiful, but thanks to my life's work it now means inferior.' Life's work, he says, and on the narrow stage of Austria this might be true, but on the wider screen of the Modern Movement at large much of his writing after 1900 went by default for lack of republication on foreign presses. It is on the reprinting history of 'Ornament and Crime' that his claim to have liberated mankind must rest.

But it rests securely. Already in the Nineteen-teens it had attracted enough notice outside Vienna to earn republication, first in Herwarth Walden's expressionist magazine, *der Sturm*, in 1912, and then in Georges Besson's sprightly translation in *Les Cahiers d'Aujourdhui* in 1913.

These reprints brought Loos—and the essay—to the notice of an interested if restricted international readership. They also presumably brought Loos's ideas to the notice of the Futurist Sant'Elia, the first writer outside Vienna to be visibly influenced by them —Marinetti, the leader of the Futurists, had contacts with *der Sturm* as well as Parisian circles.

The French version was once more reprinted, unaltered, in No. 2 of *l'Esprit Nouveau*. One should remember that at this early date (March, 1920) *l'Esprit Nouveau* still had a third director beside Ozenfant and Le Corbusier, and while its appeal to those two for its relevance to architecture and design is obvious enough, its appeal to the third director, Paul Dermée, would be equally strong. For though he was a poet, he was also close in with the Dadaists, and one can imagine how gratefully any attempt to equate Beethoven with a cave artist, and a comfort-station muralist, would fall upon the ears of those who were trying to get the Morgue accepted as an object of sentimental interest and had already moustached the Mona Lisa. The reappearance of 'Ornament and Crime' while Dada was still going full blast was uncommonly timely, and guaranteed it a favourable hearing at another moment of decision.

For this reprint appeared after Le Corbusier had finished with his flower-box-smothered house-projects of the war years, but before the Villa at Vaucresson that ushered in his new style. It was read, and of this we can be certain, by Erich Mendelsohn, between his first and second Dutch visits; after the decorated Luckenwald factory, and before the undecorated Sternefeld house. It appeared after Gropius's decorated Sommerfeld House had been designed, but before the 'reformed' projects and the undecorated Jena theatre, and again we can safely posit communication between Paris and Germany. Riding hard behind this timely reappearance came the publication of Loos's first book of collected essays, *Ins Leere Gesprochen*, which covers the years 1897-1900 only, but shows him in his Plumbing-before-Art-work mood, and remains to this day better known and more widely read than *Trotzdem*.

For, by the time *Trotzdem* appeared, Loos had ceased to be timely. He caught no mood of disgust with *Art Nouveau*, nor any Dadaist mood of disgust with art in general. Not only had the mood changed, but the ideas he had pushed had now been so thoroughly absorbed and understood that they looked more like Laws of Nature than the Works of Man.

All his best ideas had been pirated by younger men. His advocacy of Thonet chairs and *Fauteuils Grand-confort* '*Maple*' had been so thoroughly taken over by Le Corbusier that Loos began to deride Thonet as *eine falsches Modell* in order to maintain some show of independence. But even the anti-ornament campaign had been plagiarized without acknowledgment, and in the introduction to *Trotzdem* he says, following what has been quoted already,

> But even the echo as it answers believes the note to be its own, and that perfidious book *Die Form ohne Ornament*, published in Stuttgart in 1924, conceals my efforts even while it falsifies them.

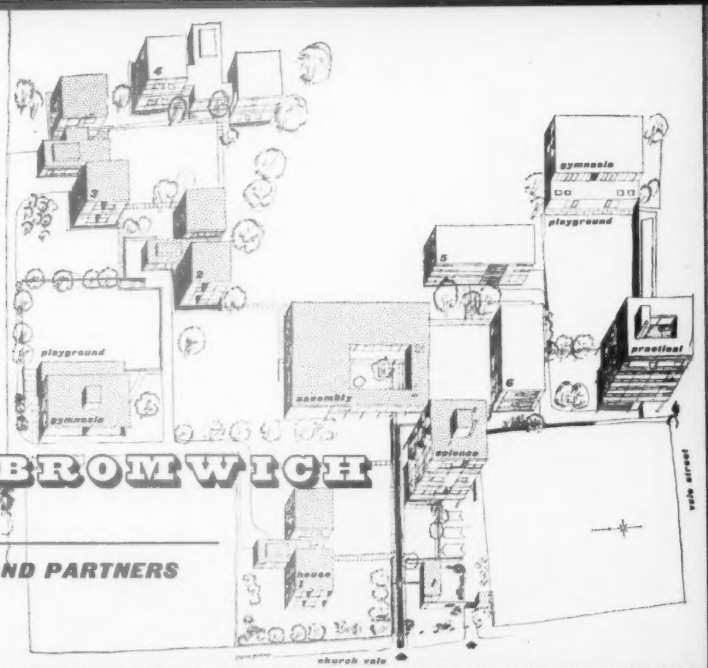
He might well complain. *Form without Ornament* was the catalogue *de luxe* of a Werkbund exhibition that toured Germany in 1924-25. Its illustrations make a brisk start with Jena glass and Stuttgart soap, but then trail off through such objects as Breuer's early Bauhaus furniture until they wind up with products so arty that they can only be described as *Sezession ohne Ornament*. The impossible, as Loos had seen it, had taken place, and the fine art designers had climbed on the anti-ornamental bandwaggon. Wolfgang Pfliederer says, in his introduction to this 'perfidious' book, 'If we survey the field of artistic handicraft today we find that it is not unified, but draws . . . from two sources . . . Technical form and Primitive form.'

Technical Form and Primitive Form. Engineers and peasants had been identified by Loos in that other prime essay, *Architektur*, as the two good, clean form-givers who did not commit the crimes of architects and artists, and to suggest that they might be tributary to the artistic handicrafts was to turn his arguments upside down and inside out. Within three years he was dead anyhow, and rapidly passing into that special limbo of oblivion that is reserved for those who have ideas that are too good to belong to one man alone. He had settled the problem of ornament as Alexander settled the Gordian knot, shockingly but effectively, and his ideas had gained an empire wider than the Macedonian's wildest dream. It is impossible now to imagine how the Modern Movement might have looked as a decorated style, but it might have been just that, had not its creators had ringing in their ears Adolf Loos's challenging equation: Ornament equals Crime.

SCHOOL AT WEST BROMWICH

ARCHITECTS | **RICHARD SHEPPARD AND PARTNERS**

architect-in-charge | **Stephen Gardiner**



Site plan. Tinted blocks are those completed to date; the numbers indicate the six housblocks, each containing two houses of 180 children.

1, sculpture by Sally Arnup in the courtyard of the assembly hall and administration block. Behind it are the sliding windows of the library and underneath a glimpse of a houseblock.

2, main entrance, with caretaker's cottage right, science block centre and library beyond left. 3, glass entrances to gymnasia cantilevered out to form a draught lobby. 4, the courtyard with main entrance on the right. 5, on the facing page, the gymnasium block from the shadow of one of the houseblocks. The windows delineate the area of the gymnasia themselves, the projecting brickwork, the changing-rooms; in the foreground, the retaining wall of the playgrounds. 6, gymnasium block from the entrance to the science block, with the glass wall of the library on the right. These buildings form the main space around which the layout of the whole scheme was designed.

2

Churchfields School was conceived by the Education Authority as a twelve-form entry comprehensive school, and half has been completed; the rest will conform very closely to what is already built. The site is on the edge of West Bromwich, with a fine east view over the valley and consists of 11 acres for buildings and 33½ acres for the school playing fields. The West Bromwich Education Authority found the comprehensive system the most desirable: but to counter the effect of impersonality, the houseblock system was devised, dividing the children into houses of 180 each. Two houses are grouped together in one building, each distinct from the other, but sharing a common dining-room and kitchen: a centralised kitchen and dining-hall for the whole school would not have given the same intimacy. For central control of the separate blocks the administrative section was planned with the assembly halls and library in the centre of the site, making a focal point equally accessible for all blocks, present or future. The houseblocks vary slightly in plan: the third and last to be completed is bigger, having one classroom more in each house and two entrances. All these houseblocks have been designed on a domestic scale—small landings, 4-ft. wide staircases—and extreme economy in planning was sought to help balance the extra cost of the extremely long service ducts, drainage, and individual dining-rooms, kitchens and equipment.

The other buildings were designed with the same object in mind, viz. economic planning: the scheme for the gymnasium block eliminated all corridors; the science block is designed as a tower and the rooms

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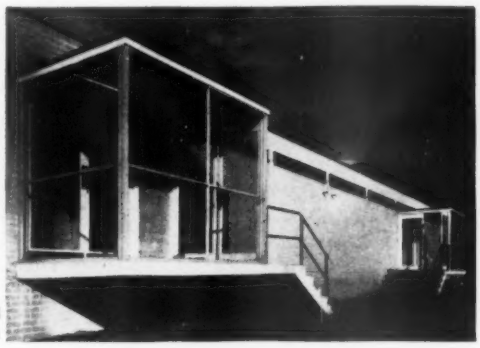

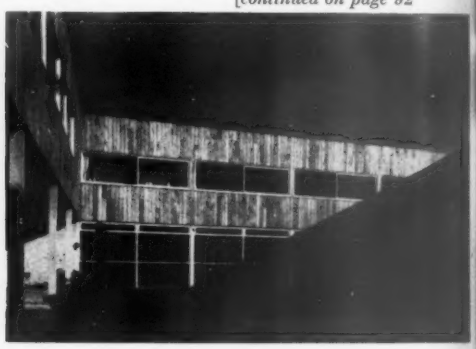

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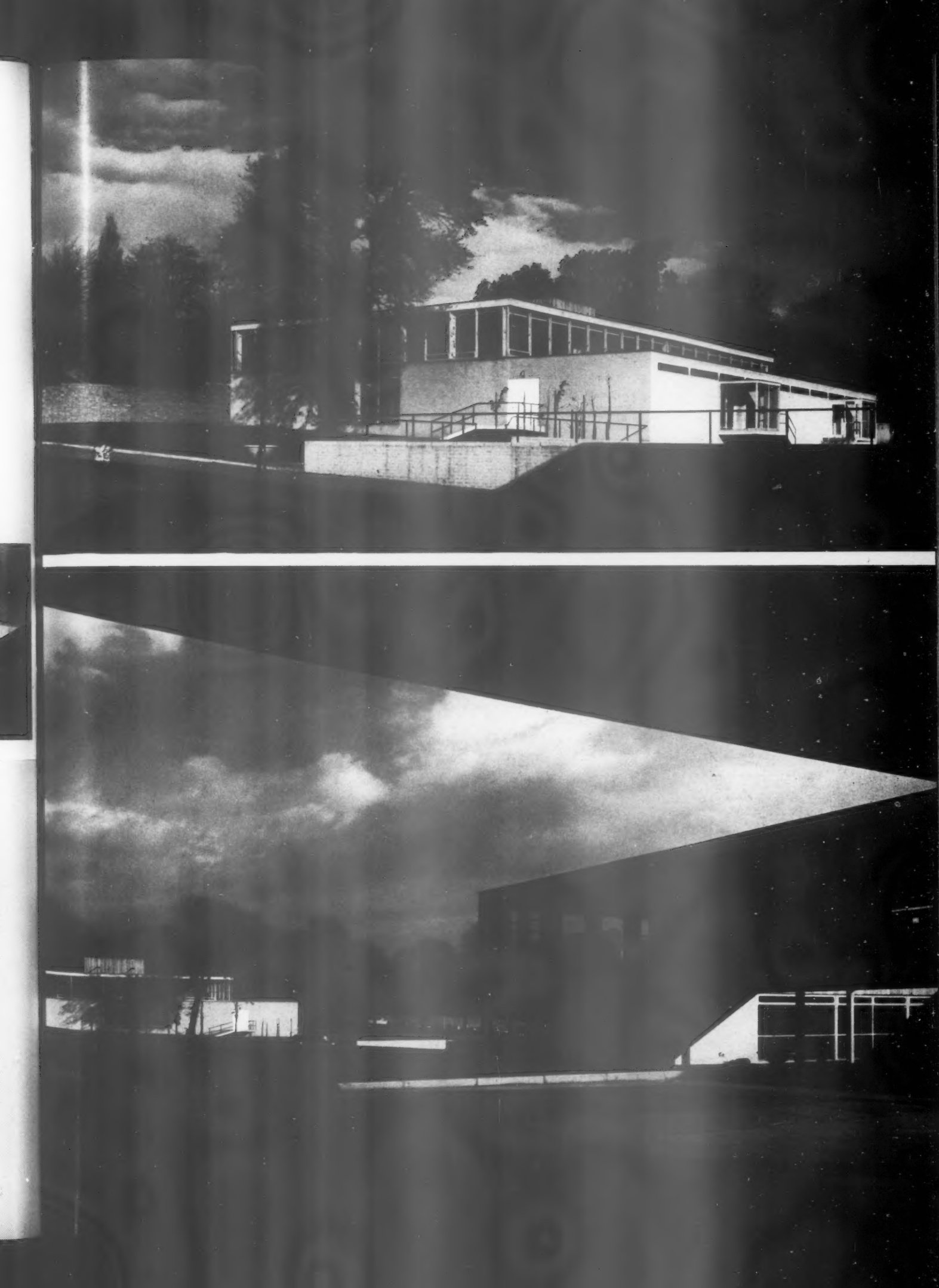
SCHOOL AT WEST BROMWICH

key
1. main entrance.
2. boys' and girls' cloak rooms.
3. staff cloaks.
4. staff common room.
5. stage.
6. assembly hall.
7. small hall.
8. woodwork.
9. metalwork.
10. entrance.
11. cloakroom and dining space.
12. girls' lavatories.
13. boys' lavatories.
14. housemaster.
15. kitchens.
16. dining room.
17. division rooms.
18. gymnasia.
19. locker rooms.
20. M.I. room.
21. assistant headmaster.
22. headmaster.
23. small library.
24. large library.
25. art.
26. craft.
C. classroom.



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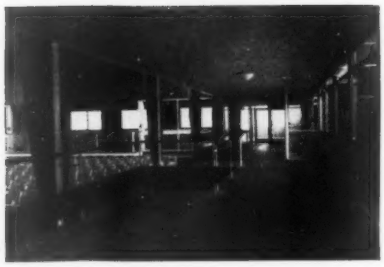

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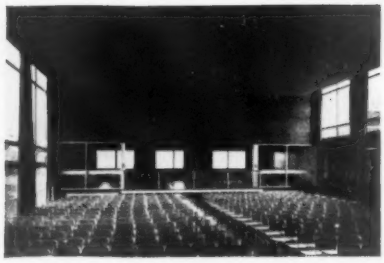

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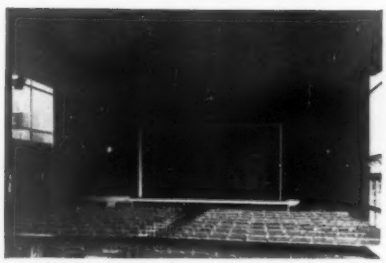
arranged tightly around a central coat space. Similarly in the administrative block, two assembly halls will be added later without interfering with the general design.

The structure and cladding of the building was affected by shortage of labour. Therefore a system of prefabrication was evolved, consisting of a normal steel construction of 'box' stanchions and R.S.J.s (the science block is of reinforced concrete) with timber stud infilling panels faced with cedar boarding and steel windows and glass from floor to ceiling. In the teaching blocks this glass is lined with breeze up to cill level to take heater units, cupboards, etc. The science block is completely glazed. To save labour, brickwork is confined to the gymnasium, assembly halls and ground floor of the science block where no other material seemed appropriate.

While the sooty atmosphere has influenced external colour—white is limited to fascias—variety has also been considered. The window panels on science block and houseblocks are differently treated from building to building. On the third houseblock, for example, a number of colours—puce, blue, Indian red—have been used on the same façade.



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SCHOOL AT WEST BROMWICH

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7, south elevation of houseblock near to the main road. All classrooms are grouped so that they have south-west and east light. Right, the science block. 8, the main entrance hall looking north. 9, the entrance hall looking south, and the assembly hall, left. 10, assembly hall and small hall beyond. 11, assembly hall stage with curtains by Shirley Blomfield. 12, staircase to the library in West African mahogany.

SCHOOL AT HIGH WYCOMBE

ARCHITECT	DENIS CLA[illegible] HALL
architect-in-charge	D. J. Dupr[illegible]

1, the school from the east; High Wycombe lies to the north. The block on the right contains most of the classrooms, with the administrative core on the first floor. The assembly hall occupies the first and second floors of the block to the left. Below is a site plan.

2

3

facing page, 2, the assembly-dining block from the south-east, with the assembly hall windows centre ; the stage is defined by the textured pre-cast concrete slabs, left. On the second floor, beyond the assembly hall, is the library balcony, designed for outdoor reading. 3, lobby on the first floor of the assembly block ; the hall entrance is behind the viewer, the bridge to the classroom block is on the left.

The site is about one mile from the centre of the town on the road from High Wycombe to Marlow, and commands a superb northward view over the town and hills beyond. The school buildings are at the southern and higher end of the site and thus stand on the brow of the slope against the skyline.

The school is planned for 720 girls and a staff of 40 in three blocks set in echelon to link related accommodation in adjacent blocks as economically as possible by covered ways and an open bridge. The central teaching block has the main school entrance and all horizontal circulation at first-floor level. At this level is the administrative core of staff rooms, medical rooms, etc. Children's entrances are on the west side in three positions adjacent to the playgrounds. Access from these to the main cloakroom corridor and lavatories, also on the first floor, is by staircases which form the three vertical circulation channels. Thus, all parts of the block are accessible through the first-floor level without the need of long duplicating corridors. On the second floor are all the classrooms : on the ground floor are the science laboratories, needlework, housecraft, art and craft rooms, and beneath these, at the north end of the block, are the changing-rooms linked to the separate gymnasium by a covered way. From this area a main horizontal duct, containing all the main service pipes, passes under the ground floor.

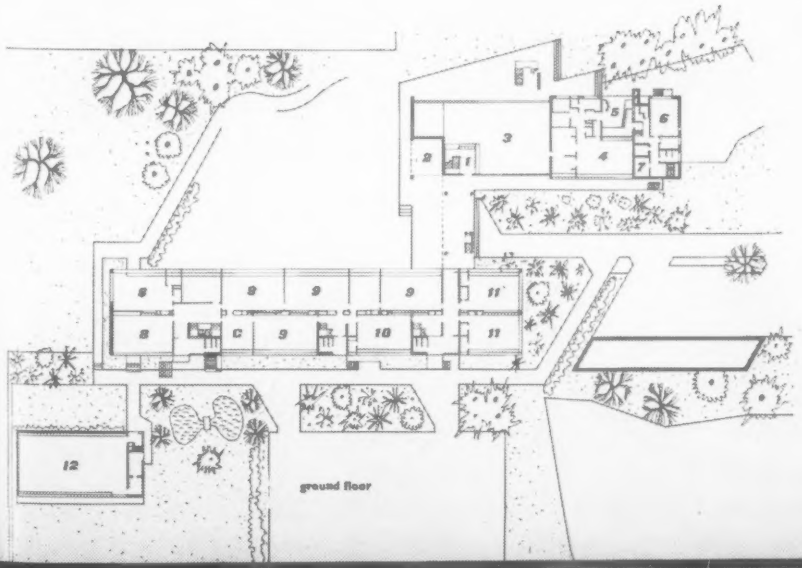
The third block houses the assembly hall with a large and well-equipped stage complete with full stage curtaining, lighting (operated from a special gallery) and sound amplification equipment. There is a cyclorama at the back of the stage, and a false proscenium, forestage and movable platforms, by use of which all types of drama can be presented, allowing experimental production methods. Beneath the stage and reached by separate staircase access are the music rooms which are also equipped as rehearsal and dressing-rooms and beneath these is the boiler-house. On the top floor of this block are further classrooms for the 120 sixth-form pupils, and the library, which has a wide recessed and sheltered balcony for outdoor reading. The library store which overhangs the rear part of the assembly hall serves as a projection room. At ground floor are the dining-hall and kitchen.

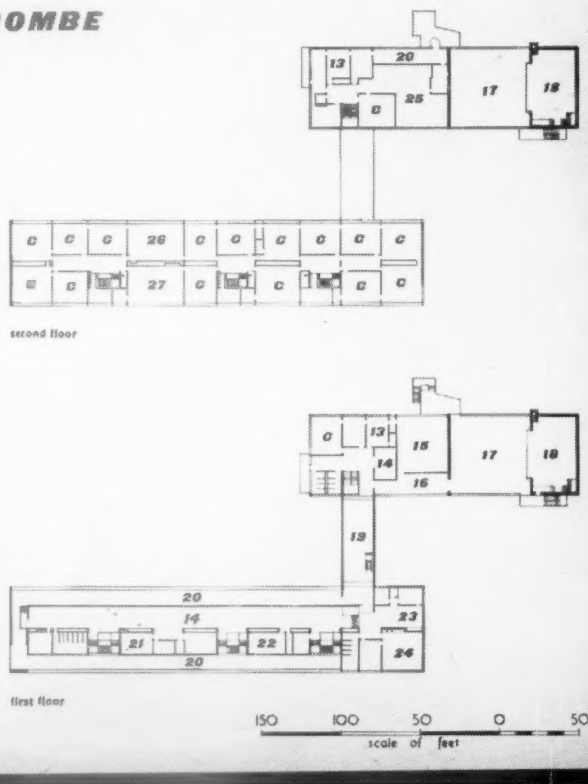
The building frame is of steel of orthodox construction except at first-floor level in the teaching block and over the assembly hall. The first of these variations from normal practice, which is to provide back lighting to the laboratories, is achieved by means of a floor at two levels, the lower being suspended from the higher which is in the form of tapered cantilever beams springing from the central columns. The assembly hall roof construction is of steel tube 'space frames' of geodesic form which spans the length of the hall between reinforced concrete beam walls, and permits full-height, full-length glazing of the long walls. Bridge, covered ways and staircase platforms, as well as the stage/boiler-house unit, are of *in-situ* reinforced concrete construction, the latter faced with precast concrete slabs with a special textured finish.

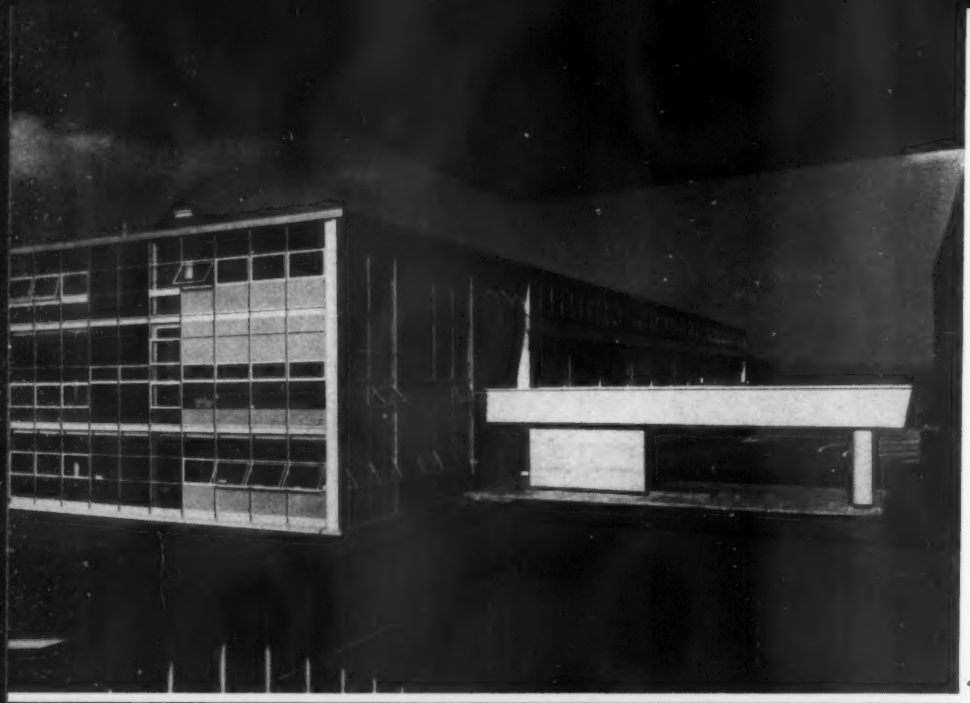
The entire school is centrally heated by low-pressure circulated hot water to radiators placed generally along the external walls. There is also a system of forced-extract ventilation serving the ground floor practical rooms, kitchens and stage. All trunking, main heating, plumbing, drainage pipes and electrical runs are concealed in ducts. Those in the main teaching block are in a central spine running the full length of the block and are connected to and served by the underfloor duct

SCHOOL AT HIGH WYCOMBE

key
1, entrance. 2, terrace. 3, dining hall. 4, kitchen. 5, kitchen yard. 6, music rooms. 7, stage store. 8, arts and crafts. 9, laboratories. 10, needlework. 11, housecraft. 12, gymnasium. 13, division rooms. 14, cloakrooms. 15, small hall. 16, lobby. 17, assembly hall. 18, stage. 19, bridge. 20, balcony. 21, medical inspection. 22, rest room. 23, headmistress. 24, staff room. 25, library. 26, general purposes. 27, geography. 28, cycle store. 29, playground. c, classroom.







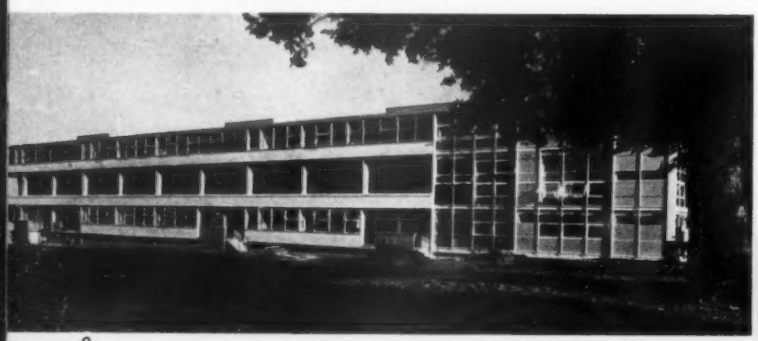
4

5

referred to above. An intercom telephone system, master radio and clock installations are also provided, serving instruments, loudspeaker points and slave dials respectively in all parts of the buildings. A class change bell system is worked in conjunction with the master clock so that class changes are rung automatically once the programme timer is set to a predetermined pattern.

Furniture and equipment generally have been specially designed. Internal colours are mostly soft with occasional bright accents: externally the colour register is higher: the soft blue balcony facings and the dark purple brick plinth at ground level contrasting with a bright red and blue pattern in the fully glazed south end of the main teach-

4, the classroom block from the platform of the stairway seen in the right of 5. Nearest the camera, on the first floor are the staff common room and headmistress's study. 5, behind the glazed façade on the ground floor is the dining ha'l; the brick wall beyond defines the kitchen area. 6, classroom block from the west. 7, assembly hall block from the west.



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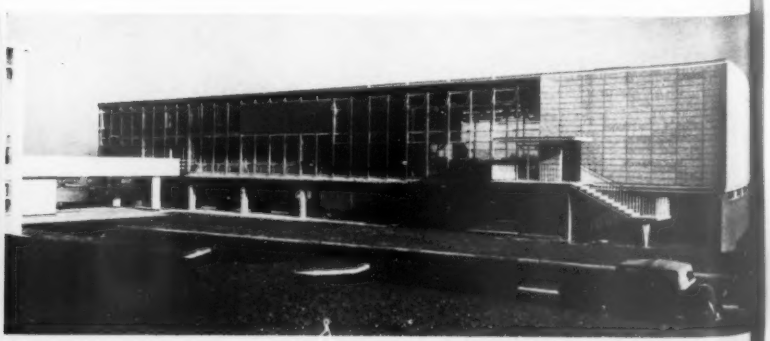


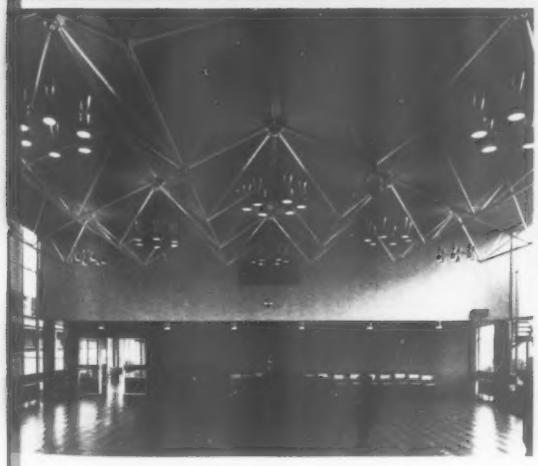
7

8

ing block, and occasional accents of black, yellow and lime elsewhere.

On the east side of the main block, enclosed to the south by the assembly/dining block and to the north and west by a curved back wall, is an open arena theatre which utilizes and emphasizes the natural contours of the ground and is overlooked by viewing balconies on each of the two main blocks. An extensive planting scheme is included.

9, 10



11, 12

8, the arena, which a terrace in the assembly hall and the long balcony of the classroom block overlook. The open space beyond is planted with sycamores and flowering cherry trees. 9 the cloakroom on the first floor of the classroom block ; beyond the windows, right, is the long balcony seen in 8. 10, the doors, centre, lead to the cloakroom ; the bridge is through the door on the extreme right of the picture. 11, the assembly hall ; the object of the roof construction of geodesic space frames is to permit full-height wall glazing. 12, dining hall, looking towards the servery.

Valentine Cards
Tomorrow is Valentine Day FEB. 14th
I send you my heart
ASPIRIN

Upper deck and lower deck shop interiors: above, showrooms in Grosvenor Street, W.1, by Dennis Lennon; below, a village shop, anywhere, from Giles' topographical treasure chest. One is all architecture with precious little on display; the other sells everything and has never seen a shopfitter. In his article below, Herbert Tayler analyzes the merits of both and assesses what each can give to the other, and, in particular, the possibility of finding a link between them; a modern equivalent of the traditional window dressing techniques, at the same time functional and decorative. Without it the 'upper deck' will become sterile and precious, and the 'lower deck' will drift into subtopian uniformity.

Herbert Tayler

SHOPS

We spend an appallingly large part of our life shopping or shop-gazing. Shops have formed a part of the architectural scene in history and in pre-history. Shops are a necessity for all, a serious business for some and just pure fun for others. They are a part of life, almost as old as life itself and they will inevitably go on until almost the end of life itself. The last rather impressive sentence really needs the glorious climax of an illustration like the Parthenon to do it justice but there is nothing to be found, for the truth is shops are never great architecture, they are never even first-rate architecture, they are a minor architectural art, capricious, mutable, transient, evanescent.

Of all architecture, the interior is always the most changeful part, and impermanent even where the outside lingers on. There are no historical shop interiors. Most Edwardian and Victorian shops have by now lost their furnishings and decorations, even if their fronts are still intact, while a Georgian front is a rarity.

In spite of its own transience, however, it is the modern shop interior which has suddenly made the whole modern style in architecture real to the public. The pioneer work was of course done earlier and elsewhere, but if 'Contemporary' has arrived in the suburbs, in the provinces, and in the council houses, it is through the décor of shops, not the early modern domestic interiors; for who but a few friends or pilgrims had a chance to visit those private pioneer domains whose plate glass looked on the hills of Amersham or the South Downs or Highgate Village and not on to the crowds of Oxford Street? Unconscious prophets were the early critics: like living in a shop window, they said of the owner of a modern house, who nevertheless braved the glass, proudly self-conscious, without net and indeed without inhibitions, as he was forced to be whenever he felt like scratching himself.

After the war it became, more appropriately, the turn of the shop assistant to live in the shop window when the curtain went up, slowly and dramatically, on the interior.

Because everyone looks at shops, the interior, suddenly revealed, could not fail to be the most influential piece of architecture for twenty years—a popular free exhibition of modern design, and the public lapped it up, multi-coloured walls, metal light shades, queer chairs, plants, the whole lot.

This was the revolution of the open shop front, the flowering of the seeds sown under the glass of the Crystal Palace a hundred years earlier. Mere window dressing had now to become over-all dressing, with all the discipline, as well as the gaiety, which that naval term implies or which the rise of a curtain in the theatre implies. There we see the result of months of careful planning, the stage perfectly set, lighted and peopled, every movement carefully controlled, every sound premeditated, nothing left to chance, everything rehearsed, the faces, the hair-do's, everything. The modern architect has an affinity with the theatrical producer, and many of the new shops, superbly theatrical, are as smooth as an Old Vic lighting plot. The shopkeeper too has jumped at the opportunity of impressing his customers (who had graduated from his earlier wiles), with more mature means, namely the colourful emotions of the theatre and of abstract art. His rising sales are sufficient to offset any snags. Are there any snags? Let's wander round and see.

We will find four kinds of shop:
(1) Large department stores.
(2) Small retail shops.
(3) Miscellaneous; travel bureaux, restaurants and so on.
(4) Showrooms; wholesale or information only.

Although it is fun to look at shops, too much of it is also very tiring, so we will not go to any large department stores, but simply look at a few in the other three categories.

Of these, small retail shops form the largest and, for the designer, far the most difficult class. For the shopkeeper selling the goods is the main thing, but for the designer appearance comes first. If commerce and aesthetics conflict, selling must win or the shop must close. Need they conflict? An eternal argument! If you open up everything everything is seen, and if everything is to be seen, it must be perfect and nothing ever is. In a theatrical production (or in any other work of art) everything must be fully controlled and intended, but in a shop much remains beyond any control, including the customers, an unrehearsable but indispensable element in the scene. And, unlike a theatre, each imperfection, each withered or dusty plant, is seen at close quarters by the audience.

If the goods are beautiful it is easier and the problem is simply to display them well in small enough quantities (museums demonstrate that the highest art suffers most from jostling). The whole stock of small-sized goods can be tidily displayed and stored attractively on shelves, in drawers and on tables without dominating the interior. This can be clearly seen in shops selling such things as jewellery, pottery or shoes. Shoe shops have pioneered the dramatic, hushed, lush interior and it is mostly under full control. The whole of the stock is kept out of sight, so the field is left clear for marshalled rows of chairs, acres of deep pile carpet and a few selected shoes (in small sizes), discreetly spotlit. The rest is just space for design, pure, simple or otherwise.

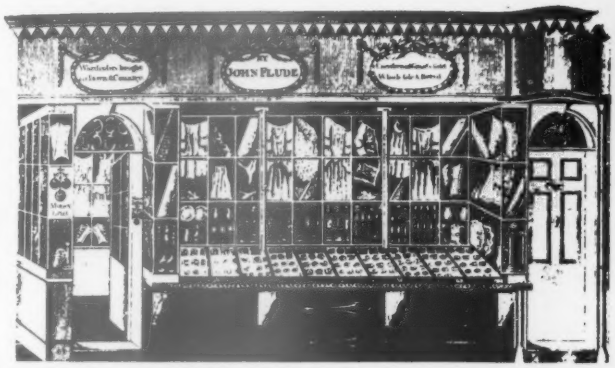
However, the goods are mostly not beautiful but extremely ugly, and are too often not small, either in themselves or in their quantity, and the shopkeeper is anxious to show off all his stock. The designer fails if he aims at Stanislavsky when the show is at the Palladium, though his critics, like those in the theatre, are often unhelpful, scolding him for being employed at a vulgar music-hall anyway.

While the designer is to be blamed if he ignores the shopkeeper's requirements, or even subconsciously objects to the vulgarity of being in trade at all, the shopkeeper can fairly be blamed for many problems legitimately only his own; however, architectural critics seldom recognize this, or comment appropriately. A work of art is essentially a whole, and to the customer the appearance is only one factor, the service and the goods being more important. Yet how often does one see a pretty interior and rotten service? What about shop assistants, the cast of our play? At one extreme are terrifyingly painted idols currently crowned with all sorts of boyish hair, butter, lavender, mahogany, blacker-than black; at the other extreme, sleazy nitwits too busy stocktaking or just gossiping to attend to you. Of what use, in a work of art, is architectural beauty without personal beauty, and personal beauty without beauty of character or without the beauty of efficiency?

And how about display? A big subject, and a headache for the small shopkeeper who can hardly be expected to keep a whole-time designer, properly trained for the job. Yet, of course, display has grown into a highly specialized affair, refined, civilized, sophisticated, exotic, and it has had to cease confining itself to the 'show window,' since the whole shop has become a display. Done well, display adds enormously to the pleasures of shopping, but it also adds to the overhead expenses. Many shopkeepers remain naturally unconvinced that 'less is more' or that display is a highly disciplined art, not just a cliché and a carefree coil of tarred rope with a few

[*continued on page* 108

1, *James Wheeley's Paperhanging Warehouse, Little Britain, London.*



2, *John Flude, Pawnbroker and Silversmith, Gracechurch Street, London.*

3, *another eighteenth century interior, Lock the Hatter, St. James's Street, London. All the stock is on display, contained in a discreet but positive framework.*

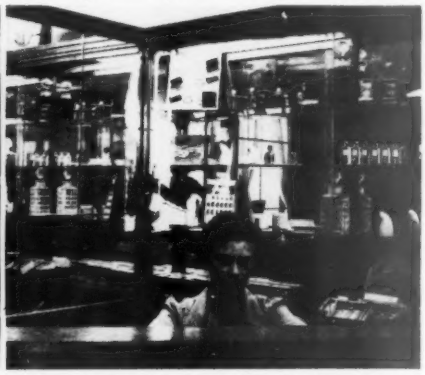
4, 5, 6

7, 8, 9

lower deck shopping: *'The classic timeless technique of the bazaar' here combines more or less successfully with modern detailing and modern goods. 8 is scarcely altered, 4 and 5 succeed by an overwhelming onslaught of goods. 6 and 9 partially succeed, 7 is completely sterile.*

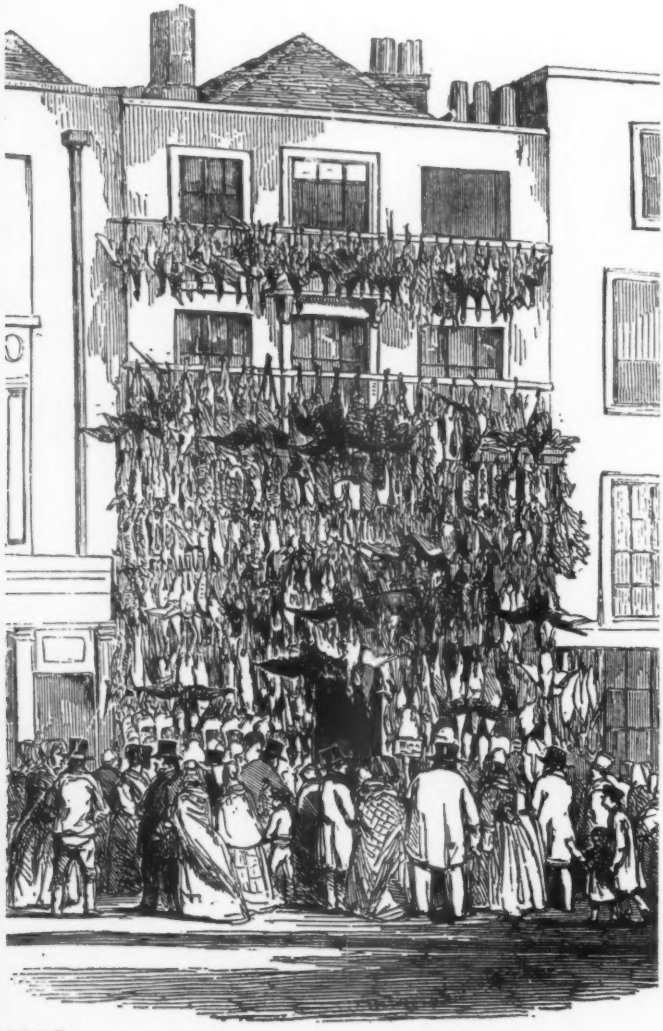
10

11, 12



13, 14

lower deck shopping: *10 would look the same if it had been photographed fifty years ago; 11 and 13 are successful exploitations of old display techniques with modern goods. 12, a supermarket, shows the same idea systematized to suggest the parade ground, not the ringside. 14, on the other hand, tries to suggest sophisticated disarray and only succeeds in being a genteel mess. None of these eleven examples, 4-14, shows the slightest trace of 'upper deck' technique.*



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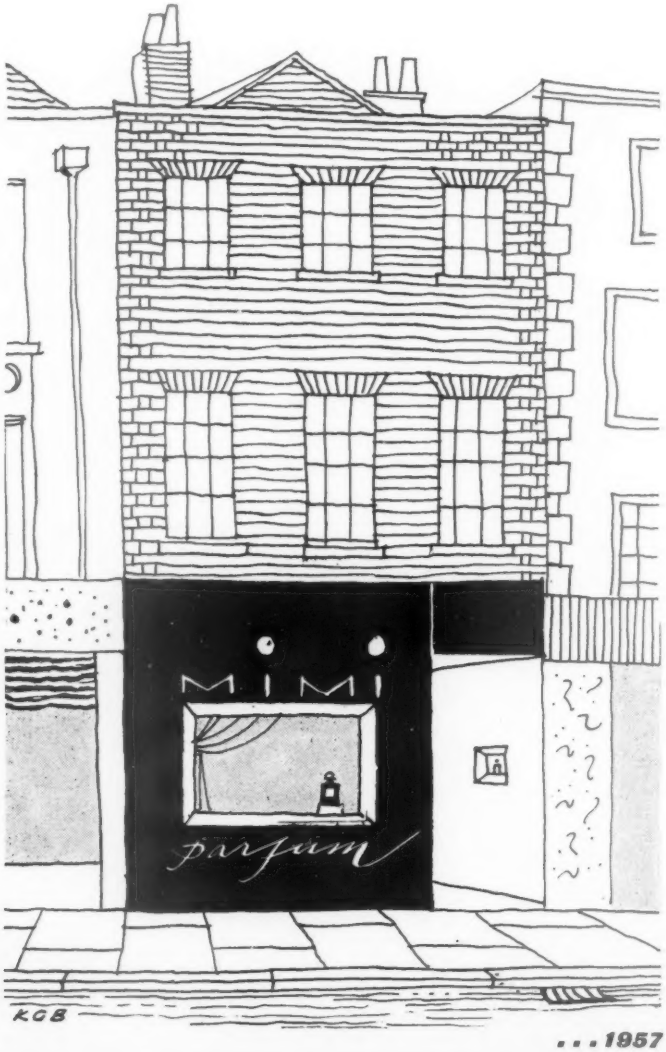


. . . 1957

continued from page 100]

pebbles hastily thrust under his beach shorts on Monday morning by an assistant with 'ideas' and tapered slacks.

Another problem for the shopkeeper is the vanishing counter. Its advantage is the downing of barriers making the inspection of goods behind (or under) the counter easier; its disadvantage a lack of focus for the customers, a lack of rallying point for the assistants with the result that both stand about looking detached and lost. The assistant is also now being seen in the round, and full length, instead of only in front elevation and cut in half by the counter, a severer test than formerly.

And then, much thought is given by shopkeepers to the process of wrapping and payment for goods. These processes should be simple, foolproof, quick and unobtrusive, but mostly they are still primitive, difficult and slow. Self-help is a new sales technique and, like so many imports to Britain from abroad, slow in becoming popular; but there are some half-way houses—the 'browsing' technique, for example, where the customer is left alone until he is ready to buy or to ask a question, which most people prefer to being promptly attacked by an assistant. This is not new, being as old as the market-place, and as its later counterpart, Woolworth's, yet it is never used in small shops, though large shops like Fortnum's and Harrods are in fact classy bazaars.

For unassisted leisurely inspection, however, all the stock must be on show, clearly labelled and priced. This means comprehensive businesslike display first and art after, yet it is interesting to see how naturally decorative the ranged-out goods in self-help or market-type shops can be. So we are back again to the goods themselves, the *raison d'être* for the shop, the shopkeeper and the customer, and for the shop designer, too, whether he likes it or not.

Away from strictly retail shops, the designer's problem instantly becomes easier and the results are therefore more often successful. In this category (which we have termed '(3) Miscellaneous') one may include a large variety of premises like travel bureaux, restaurants, bars, agencies or hairdressers, where a sales technique is present, however apparently remote from that concerned with plain buying.

What all these places have in common is the absence of goods standing about the place. The travel agency hands out small tickets and leaflets, and for its display, which includes no objects for sale, it needs only pictures to induce people to decide between Nice and Norwich. The merchandise of a restaurant or coffee bar is produced from behind the scenes or out of an Espresso machine, and the decoration is free to go its own abstract way, independent of the food served.

All these Miscellaneous non-retail premises still have the public in them, but not in the constant bargain-hungry streams that fill retail shops. The architectural character can be stronger, as it is not just a background, and the building materials can be better and more permanent where it is not necessary to display goods in front of them. Good finishes also resist wear and tear and ease the owner's maintenance. Scrupulous owner-maintenance is always prayed for by the designer and although he can make it less difficult for the shopkeeper, he can never eliminate it altogether.

Exquisite maintenance seems easiest for the owner of our fourth category, a large and growing one, the non-retail showroom. The stress is sometimes on the 'show' but more often on the 'room.' Here the producer-architect can reign supreme with no fear of the objects displayed ever being sold or mucked about, or that his carefully aimed swivel lights will be yanked out of position. Once the stage is set there are no scene changes. These showrooms have an air of ominous calm, which is undisturbed by the public or by the lavender-haired vendeuse at her spindly table (for 'information' only); undisturbed, it sometimes seems, by even the faintest breath of commerce. It is no doubt argued that lovely colour, form, texture and lighting do their fell work of salesmanship with subtlety, but a real danger exists of puzzling, arousing suspicions and finally alarm in that silly goose, the customer. If he has come, say, for a washing-up machine, he may forget all about it while gazing into the eyes of a Leonardo Madonna, whose connection with washing dishes is bound to elude him.

In some of these places the very goods themselves seem to intrude and in others the customer is out of place, so perfect and self-sufficient is the décor without either. One cannot help admiring such interiors—they obviously ask to be admired—but they seem curiously dead and divorced from reality. We have, in fact, in our tour of shops, reached the point furthest removed from the bustle of the market-place—refined but dull, the architect's heaven but not the customer's.

Is this curious fourth category a remnant of the exhibition-mania of the post-war years, when manufacturers, turning from guns to goods, had to re-establish their connections; when a public flattened and kicked in the teeth by shopkeepers had to be re-wooed; when architects, starved of any artistic work except camouflage, seized any opportunity with both hands and then proceeded to smother it? Is it too far-fetched to suppose that camouflage has had its influence in the exhibition world, disguising and distorting, not with camouflage nets, but with abstract ideas, much marble, vast photographs, Reg Butlers and trails of Trâdescantia?

However, time soon brings comfort and light to the customer who now stands amazed. Who, for instance, now turns a hair at that ubiquitous enlargement of the goddess Athene brooding over a typewriter, laid like an offering at her feet? The highbrow novelty, the new visual thrill has relentlessly become a commercial cliché, and the front-rank designer feels bound to think up something new. The rank and file will happily churn out the clichés for a year or two more, until something new crops up for them too. Something other than wall-papered ceilings, House-and-Garden walls, plastic floors, Egyptian lettering, swivel lights, vertical boarding, venetian blinds, frameless doors with queer handles, egg-crate ceilings, rubble walls, indoor plants, acoustic tiles, open fronts, open stairs, iron chairs, marble tables, mosaic murals, basketwork and the whole world of Milan. How are we to avoid all these? to do something new? For answer turn to page XXX . . . If only we could, and have done! But the trouble with art theory is that it has no simple answers.

So leaving Art alone, let us go from the smart West-End to the side streets, then to the back streets, then to the lesser boroughs at the end of the bus route, to the outer suburbs at the end of the tube, and on to the provinces at the end of the world. Turn from High

Art to High Street and we may find something new.

Here is life in the raw, the typical shops, the true state of affairs, lightly touched by bygone fashions but untouched by architects. On it goes for miles and miles: HEROD the butcher; TIN the grocer; SKATE the fishmonger (frying tonight); PILL the chemist; TRASH—lending library; CASH'S bank; FLASH—electrical goods; KOPPER KATZ for cakes; ROT—dry cleaners; DOWDIE—drapers; WANDA—hair styles; BOOP'S for radio and I. PINCH the self-service senter; they all do a roaring trade and manage to provide both the necessities of life and the old, old fun of the fair. This is not just where the other *half* shops, it is where the other *ninety-nine-point-nine per cent* shop.

Now there is no novelty in having Art only for the few and it is arguable whether a fine art is necessarily a rare art. Modern architecture is often rather pompous about its role as an all-provider for human needs, its social functions and its ability to serve democracy, etc., but in reality most buildings are never designed by architects at all.

An article on post-war shop-fronts in the REVIEW for February, 1951, said 'It is in the small shop that least architectural success has been achieved. The traditional architect, by training and profession a man of fastidious taste, passed by them, like the Levite, on the other side.' Not only economically but spiritually and subconsciously, the architect still loves a princely client and cherishes Renaissance ideals; artistically an architect must be an autocrat to be any good and is it this which so readily predisposes the profession to oligarchy and thence to abstract preciosity? If so, heaven defend the High Street from being cleaned up by architects. Better vulgarity than preciosity.

Yet the average shop *does* need cleaning up badly and the job would appear to belong to an architect; only he must come off his polished pedestal, or whatever it is. The managing director of a large and successful business, a believer in good design and in architects, says it is this: 'There is only one small thing wrong with architects, either they wear their corsets too tight (and no one can go about doubled up) or they need some Ex-Lax.' Which means in more fastidious English that we must talk less about serving democracy and show some more true awareness of its meaning, because architecture is still being confined to the upper deck, out of reach and precious.

True simplicity is entirely lacking in English modern architecture. Instead there is an attempt at cerebral sophistication too glossy and smarty, quite unsuited to the English. Because they are often unsuitable, the places architects put up quickly become tatty; they never really belong and are consequently not loved by their owners. Architecture is now practised as a business, and not as an art, because art requires more contemplation and a slower tempo than industrial civilization permits. All the fashionable ideas come from the centres and are gradually distributed outwards, filtering through the side street, to the lesser boroughs, to the suburbs and eventually to the provinces. But what could be worse than this filtered modern—the style known as 'Contemporary'? Even before filtration, it is over-bred and, in the physically sooty and spiritually snooty atmosphere, achieves only a weary elegance at its birth. Why not begin from the outside and grow the art, like fresh young lettuces, in the open and then cart them into market?

Oligarchy works from the centre outwards but democracy from the outside inwards. It is the endless repetition of small badly designed things which make the modern scene such an Outrage. Think how much pleasanter life would be if a real vernacular cleanliness and simplicity of design could descend on the High Street. What an achievement this would be for the modern style!

A traveller does not feel he is in a two-decker civilization when he buys cakes in Denmark; both the goods and the shop design are good, and normal; and every architect should see the medieval street arcades of Berne and experience the pleasure of discovering rows of glittering new shops inside them, woven into the old heart, a brilliant piece of modern surgery.

Is it that we fear provincial dullness and proletarian uniformity too much? But just look at our own High Street! It entirely lacks these qualities, except in the monotonous chain stores. We can create now whatever we want, but instead of superimposing our own abstract architectural character we could accentuate the slowly formed and therefore functional character of the business or trade for which we design. Look at the decorative displays made by fruiterers, fishmongers and florists! Here is a traditional art, and obviously immense trouble is taken, but it is an art that has grown out of convenience and necessity, for they have not heard of the Bauhaus and could not afford Moholy-Nagy even if they had. Most groceries and deep-freeze goods are now brightly packaged, and in time there will come a new tradition for display, like the old one for fishmongers with their chalked-up lettering and their patterns of plaice.

The end should be this: an appropriate, functional, varied, realistic character within the modern style. A democratic architecture; this would be something new for this country. It is what Modern is not; it entirely lacks a vernacular, a style easy enough to imitate well universally. Any style can be imitated badly, which is what happens with the style called 'Contemporary.' On the other hand, a formalistic architecture is always attractive to architects and always inconvenient to their clients. Classical architecture, superb in the right place, chills in the wrong one.

Today we are striving towards an ever greater elegance and perfection of detail, but too often with similarly inappropriate results. Because we have jettisoned Ionic capitals, we think we are doing a lot better than Selfridges. The solution is certainly not a return to the past, though the recent re-creation of a Victorian pub shows a weariness setting in with our modern style's inability to suit the right mood to the right occasion.

In childhood, shopping meant a whole pile of goods to admire, a vulgar and fantastic world of plenty, of colours and lights, of days in town and of Christmas. A dream world but not the guilty adult dreams of luxury and wealth and cupidity, a dream-state curiously reflected in some of our decorations of huge irrelevant forms, colours and symbols from the ancient subconscious via Freud and Dali. Is this our only highbrow prescription for the patient shopper? If so, no wonder he clings obstinately and cosily to Oxford Street Baroque and drinks in a jolly Victorian gin palace.

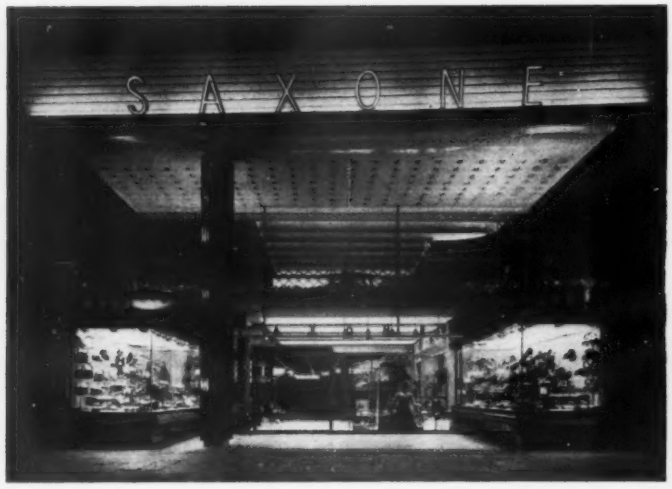
The average new shop in the average High Street, as Herbert Tayler pointed out in his article, is sunk in characterless mediocrity compared with its eighteenth-century ancestors or with unselfconscious 'popular art' window-dressing. The following article illustrates some of the best recent British shops (wholesale showrooms, which do not invite the public inside, are excluded). The critical commentary is by Ian Hodgson, and the examples illustrated show that a reasonable level of shop design does exist in the West End and in some provincial towns. But the quantity is small, the design rarefied, the clientele sophisticated; and the link between upper deck and lower deck shopping (see frontispiece, page 98) is still far to seek.

1, Dolcis, Old Bond Street, London. Architect, Ellis E. Somake.

Shops are creations of fashion, and rarely last longer than a generation nowadays without a face-lifting operation, if nothing more drastic. Perhaps this is why architects have avoided them, motivated by subconscious desires to create monuments, and what good is a monument that only lasts twenty years? Since the war, with the lifting of restrictions on luxury building, on shop-lighting, and on building materials, with Herculean efforts on the part of the Council of Industrial Design to make consumer, manufacturer and shopkeeper design conscious, the architect has ploughed a few wavering furrows on the formerly barren field of shop design. Not the pre-war pioneers, now the respected leaders of the profession, all so busy with higher things, but a new generation mostly trained or working as assistants just pre-war, and nurtured since on a rich diet of exhibitions. With a few exceptions these architects seem to have specialized in the 'shop' field, and the rest have left it to them. This is a pity: one would like to see other architects who have made names for themselves in other directions trying their hand. There are surely enough lighting engineers, display specialists, typographical experts to take sufficient of the donkey work and allow the architect to get on with the design. This statement will meet with cries of disapproval from those who think the architect should be a sort of latter-day Leonardo but never mind.

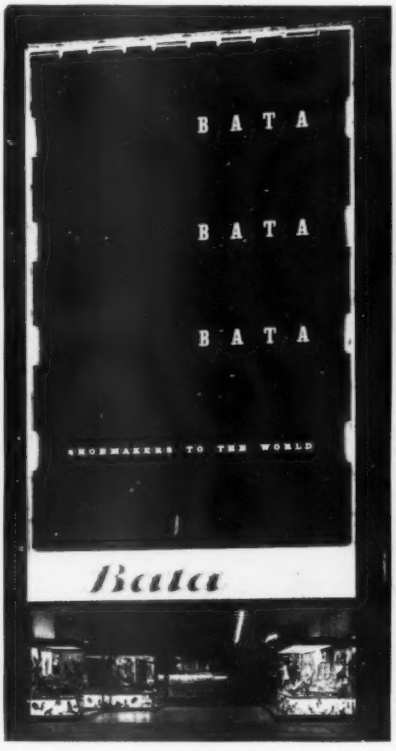
'Good design means business'—this well-intentioned slogan, alas more honoured in the breach than in the observance, was coined by the Council of Industrial Design in, I think, 1949. At that time the boom was at its peak, and the shopkeeper could sell everything upon which he could lay his hands, or most of them could; but not all. Cut-throat competition in the multiple shoe trade has resulted in a startling eruption of new shoe shops on the battered face of the West End of London. They have set about their task of ensnaring the coupon-free shoe-hungry public in many and often subtly different ways. The brash glitter of Oxford Street (Saxone, **2** and **3**) contrasts with the discreet glamour of Bond Street (Dolcis, **1**) or with the well-mannered respectability of Knightsbridge (Randalls, **4**, **5**). This movement, begun almost simultaneously by Dolcis and Saxone in Oxford Street and followed by many other branches of these two firms in London and elsewhere, has compelled most of the other multiple shoe stores to follow suit with varying degrees of success.

The Saxone shop, one of the first to make use of the double height and recessed front, suffers from an indigestible welter of textures, forms and finishes. Some rather feeble lettering has now been replaced by a bolder and more appropriate typeface, which is also being used on other Saxone branches. It does show the sense in commissioning and then sticking to, one or two good basic fascia designs, as Dolcis and Richard shops have done. But as a landmark in shop design this Saxone shop is unique. What a startling addition to the grubby Oxford Street scene it was, now no



2, top, and 3, above, Saxone, Oxford Street, London. Architect, Michael N. Egan.

4, left, and 5, right, Randalls', Knightsbridge, London. Architect, H. Hubbard Ford.



6, left, and 7, right, Bata, Oxford Street, London. Architects, Bronek Katz and R. Vaughan.

longer alone, for there are twenty-seven shoe shops, mostly new or rebuilt, between Tottenham Court Road and Marble Arch.

True-Form, on the corner of New Bond Street, **9**, has some commendably bold sans serif lettering outlined with neon but the interior suffers like Saxone from over-elaboration. The Bata shop, also in Oxford Street, **6**, **7**, by the same architects, has another version of the recessed front, single storey, with an ingenious use of mirrors to create the illusion of a higher ceiling at the rear of the shop, and a night-time use of neon which benefits from using the whole of the façade of the building from pavement to parapet as a frame. The London Shoe Company shop in New Bond Street, **8**, is perhaps the best of the shoe shops if a little self-consciously architectural. What a relief to have a plain white wall or two, a plain carpet, and a simple gridded ceiling without tricks, even if the furniture and fittings are rather angular and fussily constructional, and the patches of colour too brightly primary. The mural beside the entrance door comes off best from the other side of the street as perhaps was intended, but the insipid pale green fascia is a weak point in an otherwise neat front.

Window shopping is undoubtedly important for these shoe shops, for almost without exception they try to show as many shoes as possible and then more. The resulting confusion in the window contrasts with the comparative orderliness of the planning within; here the tendency is towards keeping the stock discreetly tucked away behind screens, or in another room altogether from the fitting room.

The desire on the part of the shopkeeper for as much window display as possible may have unfortunate results. This is the case in the Dolcis shop in Bond Street where the incised marble slab screening the entrance has been replaced by a sheet of plate glass, the neat display unit inside the main window has been added to, and an insignificant glass showcase introduced on the flanking marble wall of the set-back front. These trivialities, presumably incorporated to display a dozen more shoes, have succeeded in spoiling the coherence of what was a relatively simple and dignified shop. **1.**

8, *London Shoe Company, New Bond Street, London. Architects, Chamberlin, Powell and Bon.*

10, *left, and* 11, *right, Richard Shops, Oxford Street, London. Architects, Bronek Katz and R. Vaughan.*

9, *Trueform, Oxford Street. Architects, Bronek Katz and R. Vaughan.*

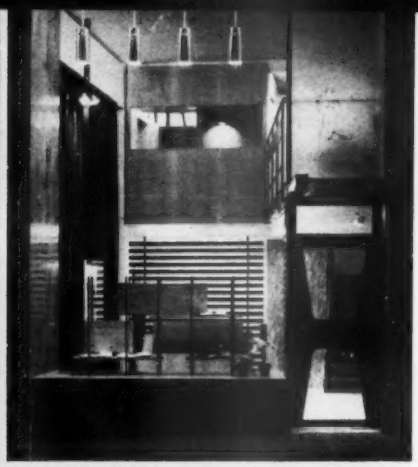
12, *Cahill's, High Street, Slough. Architect, Vivien Pilley.*

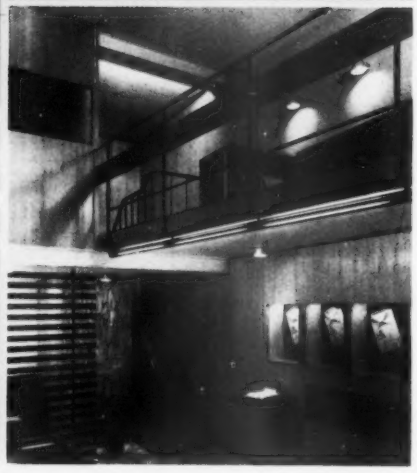
This vexing question of display crops up time and again. The dreariest of shop-fronts and showcases can be brought to life by skilful attention to colours and arrangements of display and lighting, and the most elegant ruined by the contrary. This is particularly noticeable in shops selling fashion goods, where the background to the constantly changing goods is all important and changed as often as the goods themselves. In London Simpsons' windows and the vintage 1937 interior[1] are always worth looking at, and with Woollands, Liberty's and one or two others set a standard which other shops would do well to emulate. The smaller shops are, it is true, at something of a disadvantage, possibly being unable to afford really first-class display designers, but much can be done in a modest way if the desire to cram the showcases to bursting point is curbed, and a few basic principles observed (or consciously ignored). And surely it would pay such shops to use, perhaps on a part-time basis, painters or sculptors for this work rather than rely on the dubious talents of an enthusiastic salesman, as most of them do. The annual art schools' contribution to the Regent Street shop windows bears this out.

To reiterate, shops are creations of fashion, and it is illuminating on this point, if a little unfair, to compare two shops, one just finished, the other five years old, designed for the same retailer by the same architect. The Richard shop in Regent Street, which won a competition in 1949, contains many of the then fashionable details and mannerisms; the splayed window, the splay-legged counters, the free shaped hole in the ceiling. By contrast the new shop, in Oxford Street, is bang up to date, **10, 11**. Miesian rectangles edged with black, plain surfaces everywhere, no angle but a right angle in the place, square black tube for everything. Even a Mondriaanesque mural in coloured glass, all are here. But how will they look in five years' time? Yet this tendency to date is not necessarily true of all shops; an old favourite like the Electricity Showroom[2] in Regent

[1] One of the best known works of Joseph Emberton, who died last November. (AR, December, 1937.)

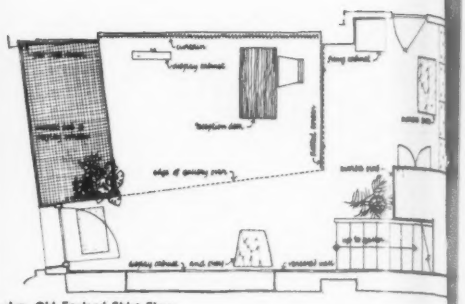
[2] E. Maxwell Fry (AR, April, 1938).





13–15. *The Old England Shirt Shop, Regent Street, London. Architects, Westwood, Sims & Harrison.*

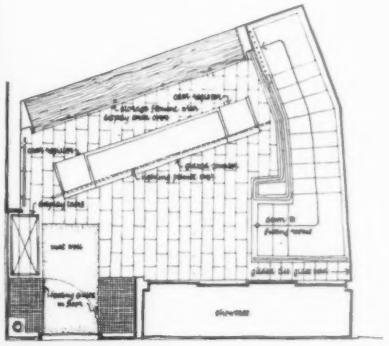
16, *Jeanette, King Street, Nottingham. Designer, Misha Black, of Design Research Unit.*



plan, Old England Shirt Shop

Street looks as well today as ever.

Certain sections of the Austin Reed shops if not actually 'self-service' are 'self-selective' and it seems, at any rate in ready-made clothing, more and more will become so. One of this type is Cordell, a small men's wear shop at Slough, **12**. Notice the excellent way the goods themselves are used repetitively, as a display feature. While it may not have the élan of Austin Reed, its cheap but cheerful approach to the selling of mass-produced clothing could well be emulated by some of the large multiple stores. Many of these have been virtually 'self-selective' for some years,



plan, Jeanette, Nottingham

with all goods displayed on open counters for the customer to inspect.

The Old England Shirt Shop in Regent Street, **13-15**, has a simplicity of materials and a delicacy of detail which is comparable with the best Italian small shops (and they are very good indeed). Only the rather feeble engraved lion and lettering above the entrance door is out of key. However, this is the client's own trade mark and name and one assumes the architect was not responsible for it.

Of almost as high a standard as the Shirt Shop, the small lingerie shop at Nottingham, Jeanette, **16**, has some good lettering and a reasonable use of a mirror wall (now part of the stock-in-trade of the shop designer); but the main window is somewhat cluttered and spoils the effect of an exceptionally well-detailed job.

The grocery shop, selling small-dimensioned packaged goods, is probably best suited to self-service; it was first seen in this country five years ago. The system had been used with great success in the USA for some ten years previously, and presented a ready-made answer to the post-war labour shortage. The CWS was one of the first to realise the advantages of the

17, top, and 18, centre, Premier Supermarket, Oxford Road, Reading. Architects, Thomas Mitchell and Partners. 19, bottom, Taylor Fraser, Stunt Cross, Barking Area Town. Architects, J. M. Austin-Smith and Partners.

20-22, Henly's, Piccadilly, London. Architects, W. S. Hattrell and Partners.

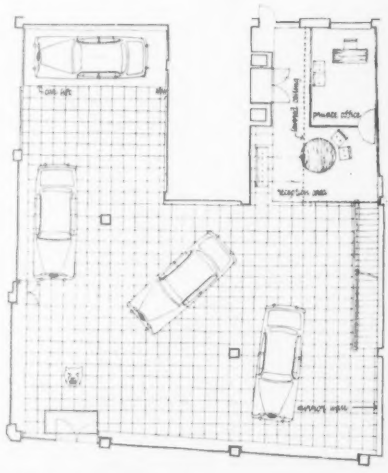
system, but, as with many of the goods sold in them, the design of their shops leaves much to be desired. The Scandinavian Co-ops, with a progressive design policy, architectural and industrial, set an impressive example which is yet to be followed here. Other multiple grocers to adopt self-service have been Express Dairy and Sainsbury, neither of whose new shops is exactly inspired. It is a pity that the excellent design of Sainsbury's packaging and labels do not have a worthier setting.

The Supermarkets at Richmond, Maidenhead and Reading, **17**, **18**, while dashingly 'contemporary' do at least acknowledge that there are tiles of other colours than brown and cream, and stone other than marble like minced liver. A smaller group of grocers' shops has commissioned a series of new self-service shops mainly in the Midlands and East Anglia, with commendable results, **19**. While by no means lavish in finishes or space, these shops are neatly detailed (except for the standard shopfitters' counters) down to the lettering on the doors and counter labels (but not the price tickets; here popular art holds its own).

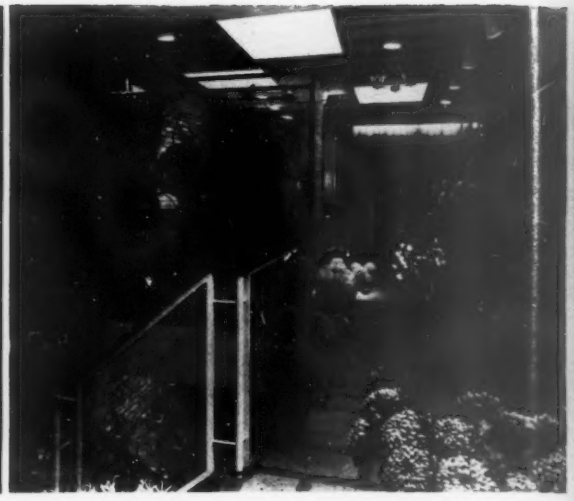
Rather better might have been expected of furniture shops now that more and more manufacturers are turning to contemporary designs to solve their sales problems. But apart from several worthy but not spectacular shops for Perring, the majority of them have been depressingly conservative.

There are a few shops and showrooms which do not readily fall into any category, but which deserve mention. Henly's sleek showroom in Piccadilly, **20-22**, provides an excellent setting for Jaguar's sleek motor cars.

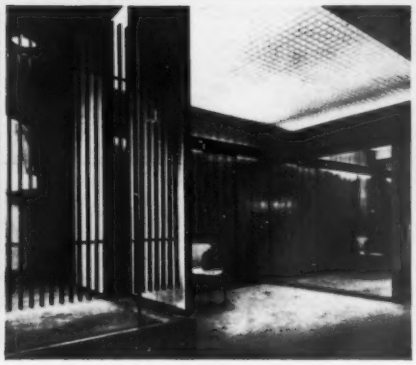
Norris the Florist, in Marylebone High Street, **23**, **24**, has so much going on,



plan, Henly's Showrooms, Piccadilly



23, *left, and* 24, *right, Norris the Florist, Marylebone High Street, London. Architect, John E. Beardshaw and Partners.*



25, *top left,* 26, *bottom left,* 27, *bottom centre,* 28, *right, Torrington Furs, New Bond Street, London. Architects, Irvine and Meddings.*

goldfish pond, birdcage, false windows, brick, pine and marble, that the interior is more like an exhibition stand after someone has ordered a few too many flowers, but it is nevertheless one of the most adventurous of the flower shops and looks its best at night.

The fur shop, Torringtons, in Bond Street, **25-28**, is neatly detailed with well-chosen materials, though the lacquer on the rosewood fascia is treacly and the lettering a bit severe. The architect, when working as an assistant, was responsible for the excellent detailing of the Bespoke Department of Austin Reed, and the Old England Shirt Shop. All three have a quality of understatement strangely rare in English shop design.

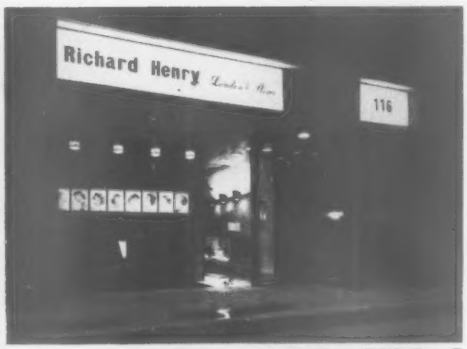
The hairdressers' shops at Knightsbridge and Sloane Square, Richard Henry, **31**, **32**, have broken new ground where discretion, represented by a half-draped female bust in a ginger wig backed by a net curtain, has long reigned supreme. The placing of the staircase to the basement just inside the main window is an ingenious way of half-masking the reception area, and at the same time dispensing altogether with any necessity for window display. The workrooms themselves are businesslike, but the details of furniture, fittings and finishes are a little harsh and uncompromising.

Better Books in Charing Cross Road, **33**, is a good job well done, and obviously with economy in mind. It serves to show that it is not always necessary to indulge in expensive materials and finishes to achieve a design of quality. So much depends on the detail and minutiae, on the handling and choice of materials. This is where the design of the best shops in this country falls, in my opinion, below the standard of the best in so many others. Our shops work well in their fashion, without contributing much original thought to technique or planning. The few examples that will stand comparison with the best foreign shops (and I include the Swiss Travel Bureau[3] in the Strand and Georg Jensen[4] in Bond Street among these) are Torrington Furs, Old England, perhaps Jeanette and Max

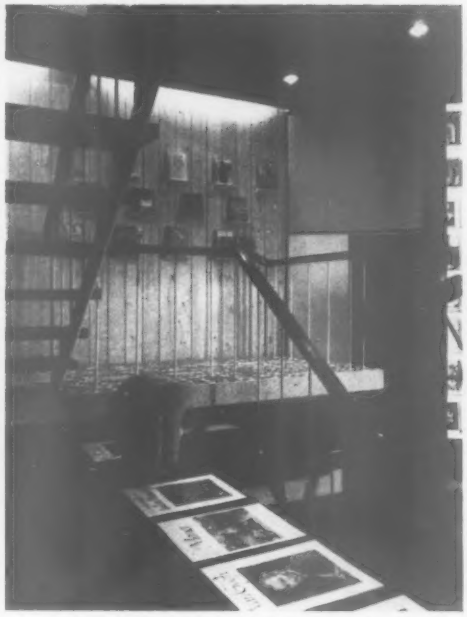
[3] Alfred Roth & T. P. Bennett & Son. AR, February, 1951.

[4] O. Gundlach-Pedersen and Ebbe Andresen. AR, December, 1955.

29 and 30, *Raymar, Regent Street, London. Designer, Robert J. Spain.*



31 *and* 32, *Richard Henry, Brompton Road, London. Architect, Kenneth Gibson.*



33, *Better Books, Charing Cross Road, London. Designers, Ronald Ingles and Vaughan Davidson.*

Factor[5], and the three travel agencies, South African, Qantas, and Iceland[6]. The firm of architects who designed these last three were responsible for the Finmar[7] Showroom which, although not strictly a shop, should be mentioned with the examples above. Among showrooms which have windows to the street, thereby encouraging the public to window-shop, if not to buy, are Leisure[8], Vono (Frontispiece, page 98) and Raymar, **29**, **30**. The showroom selling one type of goods wins out over the less fortunate shop selling many. Raymar, with its simple arrangement of carpets and samples in a simple setting, shows particularly clearly the benefit of selling one type of goods only.

It will be noticed that the shops I have selected for special praise are all comparatively small; perhaps it is easier to keep them simple, for complexity of function often opens pitfalls for design. It will also be noticed that the majority of examples are in the West End of London. In the matter of shop design London has clearly for long set an example, good or bad, which the rest of the country has followed, and continues to follow. However, the over-all picture of shop design whether in provincial, suburban or central London streets is one of saddening mediocrity.

[5] Gordon and Ursula Bowyer. AR, March, 1956.

[6] All James Cubitt & Partners. AR, February, 1951; AR, October, 1951, and AJ, 20th November, 1952, respectively.

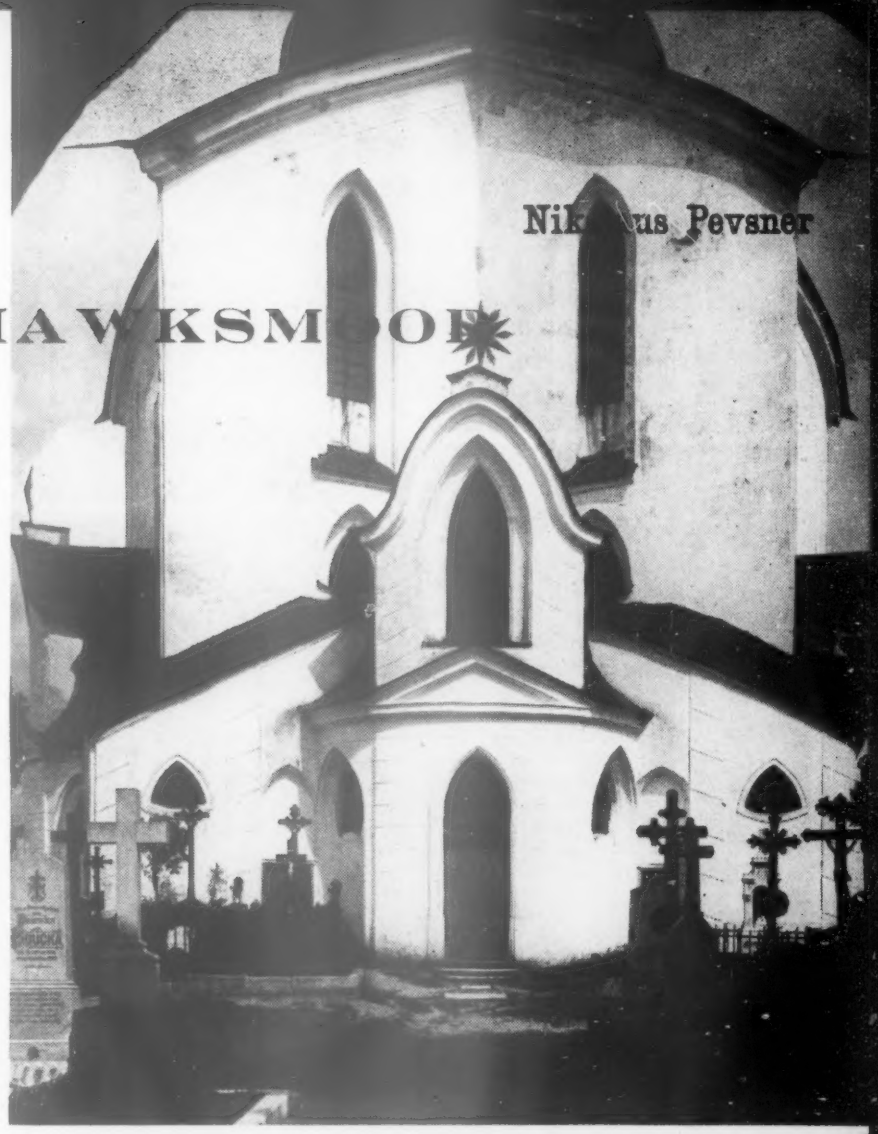
[7] James Cubitt & Partners. AR, November, 1954.

[8] Challen and Floyd. AR, October, 1954.

Nikolaus Pevsner

BOHEMIAN HAWKSMOOR

We are inclined to regard the Gothic Revival as an English prerogative, and to suppose that its exponents abroad were our followers. But this is not always true. There are rare cases of indigenous Gothicism in France and Germany, ahead of the spread of English influence, and one of the most remarkable of these is the case of Santin Aichel, also known as Santini, a contemporary of Hawksmoor, who created an original Gothic style of his own in Bohemia, in the years after* 1712. *In that year he began work at Kladrau, whose apse vaults reveal his characteristic strain of fantasy in the rib-work, and also the chapel at Saar,* 1, *which reveals originality of a more plastic order.*



1

While the dates of Santini and Hawksmoor correspond, their works were designed and built in two entirely different worlds. Hawksmoor built for noblemen and the Commissioners for the Fifty New Churches. He held appointments in the Surveyor General's office under the Crown and had been for very many years Wren's chief amanuensis and assistant.

Santini came from North Italian stock. His family had lived in that part of the country which had ever since the Middle Ages produced masons and decorators who travelled far in Italy and into Germany and Austria. They were itinerant craftsmen, and might settle in any country or province. Santini's family had made Prague their home, and here he became the favourite mason of Bohemian monasteries, chiefly Cistercian but also Premonstratensian and Benedictine. He was born in 1667, six years after Hawksmoor and three after Vanbrugh, and he died in 1723, the year of Wren's death. His work can be followed from 1703 onwards.

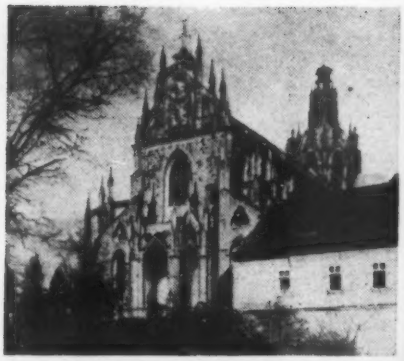
He built sometimes Baroque and sometimes Gothic. His Baroque is in the Bohemian idiom which was founded on Borromini and Guarini and is most familiar in the works of the Dientzenhofer family, both in Bohemia and Franconia. But his speciality was his peculiar, highly personal brand of Gothic, and 'more Gottico' is actually the term used by the abbot of Kladrau in a letter of 1720 to characterize his style.

Kladrau, 2, 3, is Santini's *magnum opus*, the complete remodelling of a Romanesque Benedictine church of which no more was allowed to remain than the ground plan in general, and the bare masonry of nave and aisles and chancel. All the rest is Santini's. His work started in 1712 and was completed in 1726. It comprises the vaults and the central tower which is indeed not a tower but a dome, that is the favourite feature used by the Baroque to distinguish a crossing. The details however are not Baroque but ornately Gothic, with ogee-gables and pinnacles. All forms are long and thin and seem rather a carpenter's than a mason's. This fragility is familiar to us from Batty Langley and others.

But the exterior trimmings hardly prepare one for the *jeux d'esprit* of the vault. They were clearly Santini's delight, and he indulges in them wherever he can. They appear in his earliest recorded work, the Cistercian church of Sedlec, 4, 5, 6, a building of the late thirteenth century ruined in the Hussite revolts of the early fifteenth century and thus, like Kladrau, a remodelling job, and they go on to the Premonstratensian Seelau of 1712, etc., 7, and the Cistercian Saar. The chapel illustrated here, 1, 8, was begun in 1719.

What are we to make of Santini's Gothicism? Is it Survival first of all or Revival? In England it is the country masons usually in whose work Gothic survives and the architects of a higher order, Wren, Hawksmoor, Kent and so on, who consciously revive it. But in Santini's case, although he was a mason rather than an architect, his attitude is that of Revival rather than Survival. There are clearly two sources to his configurations of ribs. One is the local Bohemian version of the German 'Sondergotik,' that is the Late Gothic in Germany. Its most brilliant exponent was Benedict Rieth. His vaults of Kuttenberg (or Kutne Hore), 10, of c. 1500 or of the Great Hall on the Hradshin at Prague are clearly taken up by Santini. He had in this no immediate predecessors. He might have found these forms suitable for the remodelling of a Gothic church or for work within a Gothic ensemble for the same reason for which Wren in his famous memorandum of 1713 on the completion of Westminster Abbey said: 'To deviate from the old Form, would be to run into a disagreeable Mixture, which no personof good Taste could relish.' Yet, in Santini's case, the flamboyance of Benedict Rieth's ribs was by no means in harmony with the severity of

* The most important literature on Santini is Zdenko Wirth in *Pamatky Archaeologické* 1908, Hans Tietze in *Kunstgeschichtliches Jahrbuch der K. K. Zentralkommission* 1909, and Hans Gerhard Franz in *Wiener Jahrbuch für Kunstgeschichte*, vol. XIV (XVIII; 1950).



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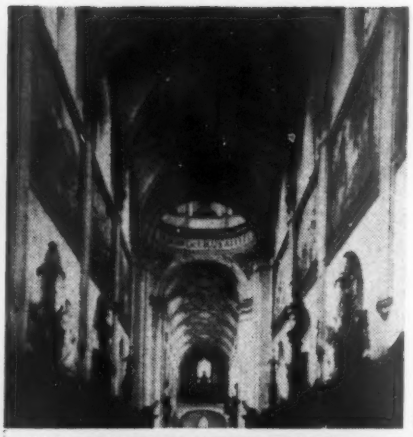

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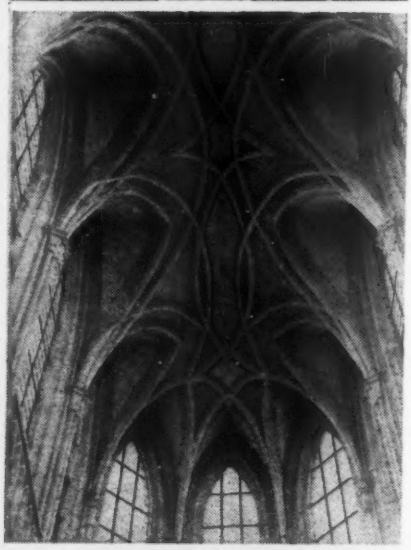

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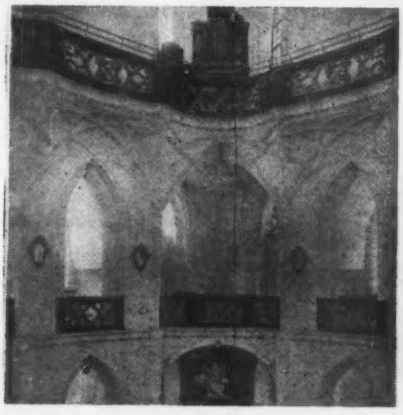

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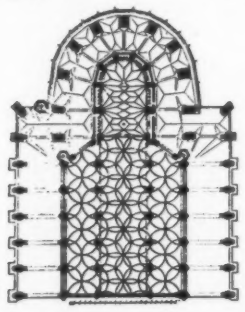
9

2, exterior and 3, interior of the Benedictine church of Kladrau, entirely rebuilt by Santini, and his most important work, 4, the remodelled thirteenth-century Cistercian church of Sedlec; 5, the choir vaults, and 6, baroque vaults on Gothic ribs in the same church, 7, aisle of the Premonstratensian church at Seelau, 1712. 8, S. John's chapel of the Cistercian church of Saar, begun 1719. 9, the Propaganda Fide, Rome, by Borromini, the stuccowork of which was one of the sources of Santini's work; another was late Gothic vaulting of the type found at Kuttenberg, 10.



10

Cistercian Gothic, and thus its revival amounts no doubt to a free choice for reasons of personal preference. This preference early in the eighteenth century can be explained by turning to the second source of Santini's fanciful patterns. This is the stuccowork favoured by Borromini in such buildings as the church of the Collegio di Propaganda Fide, 9, (1662–1666). There one meets the stars and interlaced stars which Santini liked so much, 10. So perhaps to him there was not all that much difference between the recent masters who were universally popular and the ancient masters whom he had rediscovered. He may well have seen his discovery less as a breaking away from the style of his day than as its confirmation in the no doubt highly respected art of those old masters whose work he had to continue.

That in addition the choice he made, the early sixteenth rather than the thirteenth or early fourteenth century, suited the general development of German and Austrian architecture from the Baroque to the Rococo, from the massive to the airy and playful was in all probability not realized by him either. One need only in one's mind substitute a coffered tunnel-vault for Santini's patterns of elegantly flung interlaced ribs, patterns reminiscent of the choreographer's art, and the Rococo bent of Santini's taste will be patent.

In all this he is the exact counterpart of Hawksmoor, though Hawksmoor's Baroque is different from the Bohemian mason's. But the recessed façade of All Souls has the very same carpenter's quality, that spindly thinness which we know from Santini's façades and ribs. The essential difference between Santini and the English is the Italo-Bohemian's more uninhibited gaiety and a naïvety which places his designs close to folk art. The façade of the chapel at Saar may look like a backdrop from Doctor Caligari, yet it is certainly not selfconsciously theatrical, and Santini could never have spoken of 'lean windows fattened with rich saints' as Horace Walpole did.

And finally, from the historian's point of view, Santini is a freak. He had no successors worth speaking of, and when the Gothic Revival appeared in Germany after 1750 as a general taste, it was in imitation of England and her completely consistent and close development of Gothicism from Hawksmoor to Walpole.

POSTSCRIPT. Santini is known to have visited Holland and England before 1700. Professor Dagobert Frey has suggested that the Ely Octagon may have influenced his dome at Kladrau. This does not to me seem necessary, and as nothing is known of what Santini saw in England one hesitates to assume a journey to Ely.

HOUSE AT COOKHAM, BERKS

ARCHITECTS | **PLANNING DESIGN TEAM**

1, from the south: the entrance, centre, is at a half-way level between the living area (first floor) and the bedrooms (ground).

The site at Winter Hill is a steep slope overlooking the Thames, with a small flood meadow at the bottom, impractical for building; the subsoil is chalk. The approach to the site is down a steep, narrow lane, which made the delivery of materials awkward; to the south on the other side of the lane and to the west are well grown trees.

The planning was determined by the magnificent north view and by the wish to admit as much sun as possible, particularly into the living room; also by the only possible approach which is from the east corner. To answer the first need, the living-room, dining space and kitchen were placed upstairs and the bedrooms below were placed forward, to reduce the cut and fill to a minimum; the projecting portion forms a wide balcony. The entrance is at the halfway level, with a small flight of stairs up and down. The roof is mono-pitch, to make the north wall as low as possible, and so that a clerestory light could let in the sun. The children's bedroom is designed to allow for later subdivision, two doors being provided.

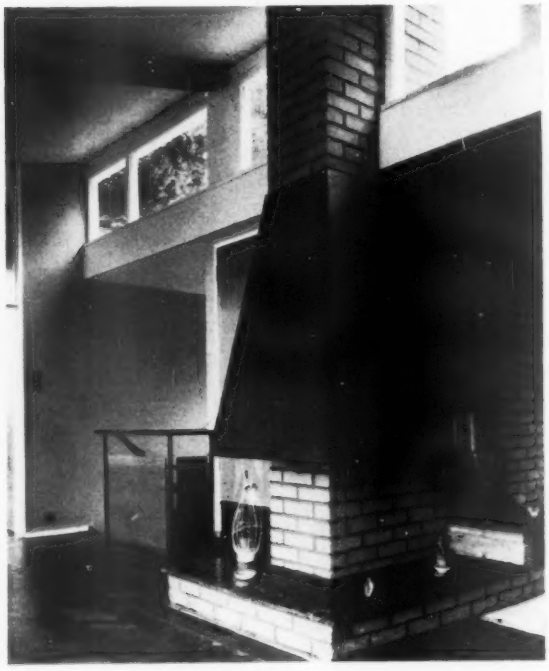
The construction is of load-bearing cavity walls up to ground-floor level, consisting of 4½-in. Uxbridge flint facings, 1½-in. cavity, and 3-in. breeze blocks. The first-floor slab is 6¼-in. hollow-pot, above which the construction is of timber studding with oiled cedar board outside, and foil-backed plasterboard inside. One brick wall at the entrance is carried up to assist bracing. The roofs are covered with wood-wool slabs, screed and built-up bituminous felt roofing. Over the main area of the living-room the slabs are channel reinforced and light angles span between front and back walls, bolted to main studs with timber connectors.

The floor finishes are plastic tiles in kitchen and children's room, wood-block in living- and dining-room, and fitted carpets in the bedrooms. The kitchen has a 'through' dresser opening to both kitchen and dining space, and a dustbin recess sealed from the kitchen, but

2

3

2, north elevation. 3, dining space with living-room beyond. The end wa'l is painted terra cotta colour ; the lamp fitting is brass. 4, living-room fireplace with black sheet metal hood and green terrazzo hearth ; the bricks are grey-purple flint-limes. 5, west elevation and children's terrace.

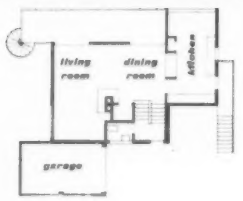


4

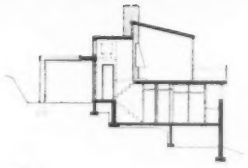
placed just outside the door. The hearth to the living-room fireplace is of Genoa green aggregate terrazzo ; the hood has closing grilles to prevent loss of heat when the fire is not alight. The balcony rail is of weld-mesh panels, with teak handrail. The internal stair is of mahogany open treads and handrail, with ply panels supported by 1-in. steel tubes. Access from the children's terrace to the balcony is by a cast-iron spiral staircase. The sliding windows in the kitchen and living-room are single sheets of plateglass sliding on special ball tracks, with a timber hand-grip, but no timber framing. All framing is painted white ; downpipes and other ironwork are black and natural wood is polished.

Heating is by the radiation system (oil-fired) ; the sloping site allowed the oil tank to be hidden in the ground and still give gravity feed to the boiler.

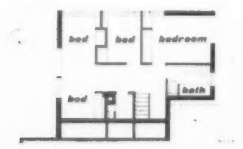
5



upper floor



section



lower floor

scale 1 32 in. — 1 ft.

HOUSE AT SEAL, KENT

ARCHITECT | **NEVILL TUFNELL**

1, south elevation; 2, closer view of the hall entrance on the garden side.

1

2

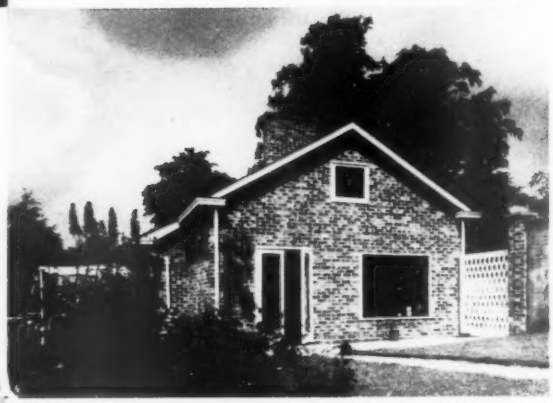
The house is in the grounds of one of the oldest properties in Seal. Planning objections to its construction came from householders whose properties were developed in the late 20's and early 30's: the Estate Trustees therefore forced the compromise east elevation which has two floors (and contains kitchen and dining-room, with an attic over); this greatly increased the cost but gives the interior a pleasing change of ceiling heights. Estimates from local builders were so high (£3 10s. per sq. ft.) that it was decided, with the assistance of friends, to build with direct labour under the owner's supervision. Notwithstanding unfavourable terms for buying materials and the maximum discount of 2½ per cent, the total cost, excluding the garden, was about 39s. 6d. per sq. ft.

The main construction specifications were maintained

3

HOUSE AT SEAL, KENT

3, the house from the east: the finish is cedar board. 4, the two-storey east elevation containing dining-room and attic above. 5 looking from the hall through the living-room, with the dining-room beyond, where the ceiling height is lower than in the living-room, the space being taken by the attic. 6, the main bedroom at the north end of the house.



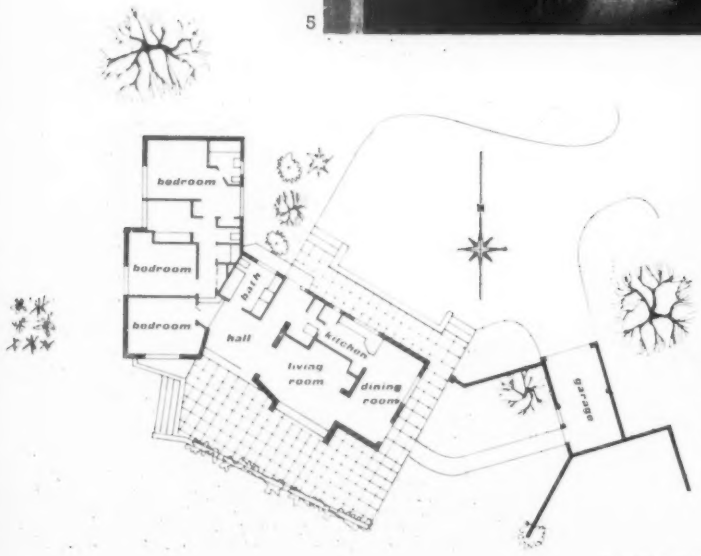
4

at the expense of ornamentation and elaborate fittings. The cavity walls are of stock bricks (seconds) with an inner skin of 4-in. insulation blocks which were also used for all the partition walls, to ensure sound insulation. Double-glazing is used throughout in purpose-made wood-frame windows except for the bedrooms which have side-hung pivoting double windows. Ceilings are of ½-in. insulation board with 3-in. vermiculite over. Reinforced precast gutter units were used to save the cost on making concealed gutters; cedar shingles were used on the roof. The footings are concrete but floor construction is unusual: 1-in. pine boards are secret-nailed to battens in the screed, and under the 5-in. concrete raft is a 5-in. layer of 2¼-in. clean shingle. It is thought that there can be no capillary attraction of moisture through this layer, and before the flooring was laid some tests were made to prove its effectiveness. Water proofing membrance between the concrete and screed, and roofing felt between the screed and the floor boards, complete the damp proofing.

Heating, apart from one large wood-burning hearth, is by electric convectors. A heat pump, assisted by an immersion heater, provides refrigeration and hot water.

5

6



scale 1/32 in. = 1 ft.

HOUSE AT GRANTHAM, LINCS

ARCHITECTS | **GORDON AND URSULA BOWYER**

1, night view from south-west. 2, north-east elevation. 3, south-east elevation by day: the white fascia above the window houses a sunblind.

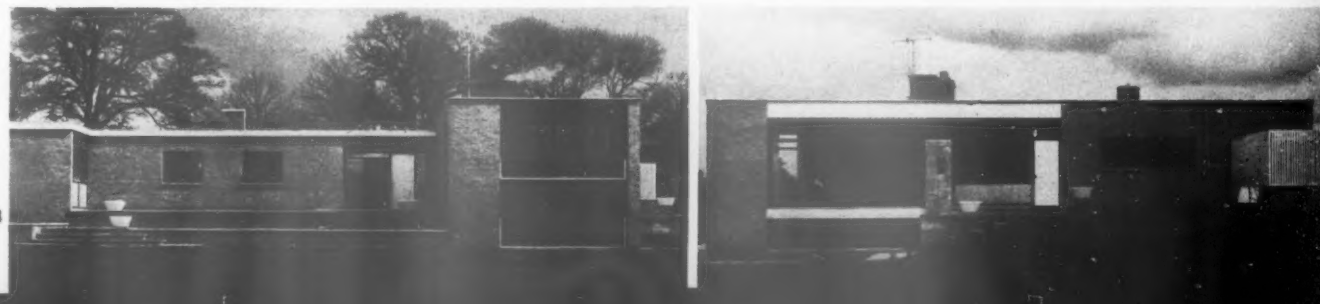
1

The site has good views of open countryside on all sides except the S.E. where the road is screened by a belt of trees. The ground slopes away to the N.W. and at the bottom of the slope a stream cuts off the client's farm from the rest of the site.

The accommodation is grouped in three blocks which are arranged in an H-form. One block contains the living-dining-room and kitchen with a games-room and boiler-room underneath; another, the entrance hall, cloakroom, main bedroom and bathrooms, and a third, two children's rooms and a spare bedroom with a garage attached at one end. This last can be cut off from the rest of the house when not required, as, for instance, when the children are at school.

Load-bearing brickwork is used, with infilling panels where large openings occur. Window frames are generally teak with a few in black-painted softwood. Fixed double glazed panels are used in all large window openings to reduce heat loss. In the lower part of window openings are bright blue-enamelled glass panels. The infilling panels above and below the strip window on the north-west side of the living-room are faced with teak strips; fascias and external doors are painted white. The fireplace wall is of Clipsham stone. The roof is formed from timber joists covered with ½-in. chipboard, ½-in insulation board and threeply roofing felt, and the ceiling is lined with aluminium-backed plasterboard.

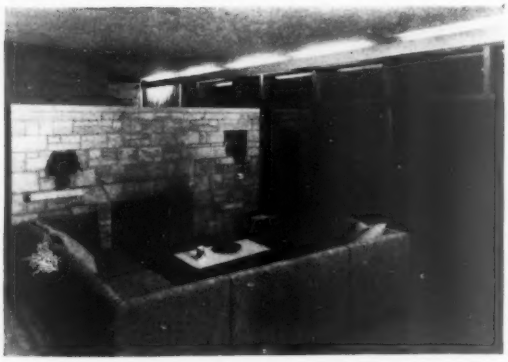
Heating and hot water are provided by an oil-fired boiler in the basement; radiators are of the pressed steel type and all pipes are concealed in underfloor ducts.



2, 3

4

4, dining space ; the weathered sycamore-veneered fitting divides off the kitchen ; beside the black ebonised sliding hatch is a mirror. The curtains are lemon yellow, the carpet olive green. 5, the kitchen side of the same fitting ; the back of the dining space mirror is painted orange. The ceiling is yellow, the floor blue lino. 6, log-burning fireplace in living-room set in Clipsham stone wall that projects through window (see exterior view, 1). Dining space is beyond it. Fluorescent tubes are concealed in pelmet ; sofa coverings are black and white tweed. 7, the north-west end of the living-room.



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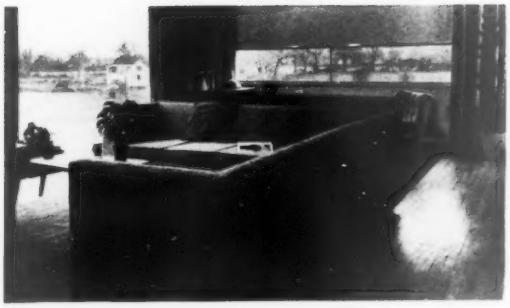

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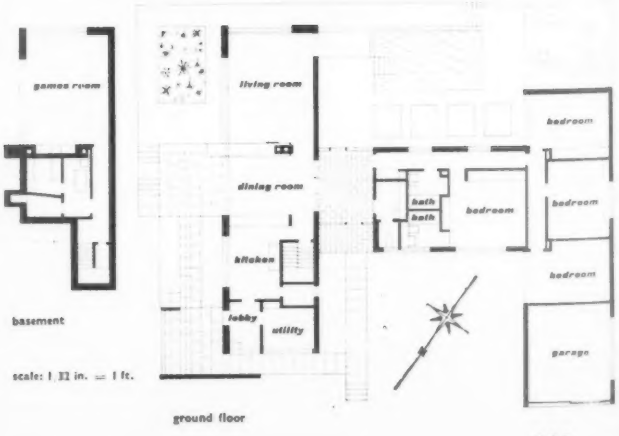
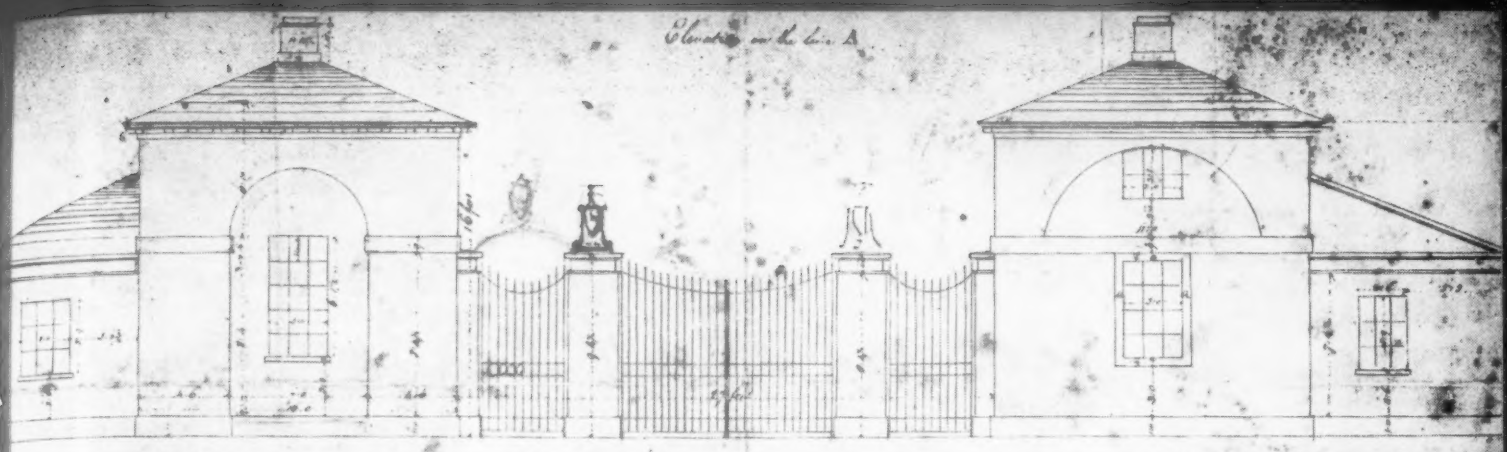


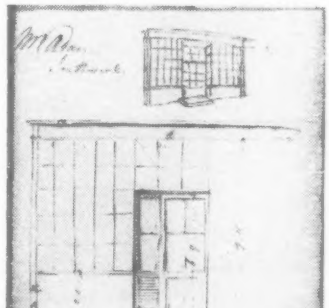


THE EARLY WORK OF SOANE

Dorothy Stroud

Sir John Soane has been unfortunate in that so little of his important architecture has survived. Several of his early works have, however, recently come to light, and while they lack the lively imagination of his more mature style, they probably owe their existence to the fact that they did not meet the violent prejudices often aroused by his more singular designs.

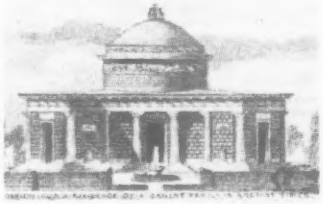
Soane returned from three years of study in Italy in June, 1780. During the next few months he picked up a precarious livelihood by helping George Dance with estimating at Newgate Gaol, and by redecorating, from 1781 onwards, two large London houses, one in New Cavendish Street for the Hon. Philip Yorke, and the other at Hyde Park Corner for the Hon. Wilbraham Tollemache. There was also a commission for tidying up a small estate in the Borough belonging to Francis Adams, 1, and a



Title-block (top of page) Soane's drawing of a pair of lodges he designed for the Hon. Philip Yorke at Hamels. 1, above, shop-front for Mr. Adams' estate in Southwark, from Soane's notebook.

good deal of surveying. But this gave little scope for a creative artist, and Soane's notebooks—those small pocket volumes in which he made scrappy, almost illegible notes to serve as an aide-memoire—confirm the impression that 1780–1781 was a lean period.

While in Rome, Soane had been introduced to the Bishop of Derry in, whose company he travelled to Naples and made a number of excursions. One of these was to Terracina to study the remains of the Villa of Lucullus, where the Bishop's curiosity was aroused as to the appearance of



2, design for the Bishop of Derry of 'a Residence for a Canine Family in Ancient Times.'

classical dog kennels. Soane thereupon made for him two versions of 'A Design for a Residence for a Canine Family in Ancient Times,' 2.

With the Bishop radiating affability and encouragement, Soane then ventured to make further designs for him, including a summer dining room for his Irish seat, Downhill; and a study of the Temple of Vesta at Tivoli of which the Bishop contemplated building a copy in his park.

Shortly after leaving Rome, the Bishop succeeded his brother as 4th Earl of Bristol, and wrote to Soane requesting his presence as he had chosen him to be the architect for a new mansion. Soane, full of confidence, curtailed his Italian stay and proceeded to Downhill, where for six weeks he hung about with no sign of a commission forthcoming. Eventually he asked leave to return to London, which was granted without any form of payment for the time and trouble he had expended on many designs for the Irish house.

Looking back on this episode from his later years, Soane described himself as 'keenly wounded, depressed in spirits, and my best energies paralysed.' The notebooks, however, show that he soon mastered his disappointment, and was cheered by the company of such good friends as James Peacock and Richard Holland (cousin of Henry, and a prosperous builder), with whom he frequently dined and on occasions went to the theatre. Even more important in the restoration of his spirits was the encouragement given to him by Mr. Yorke and Mr. Tollemache, and by some of the wealthy travellers who had met him in Italy and remembered him on their return. Of the latter the most eminent was Thomas Pitt, Lord Camelford, who was to consult Soane on a number of minor matters connected with his Oxford Street house, and his country places at Petersham, Boconnoc and Burnham. Another was John Stuart of Allanbank, who in 1781 put the redecoration of his Wimpole Street house into Soane's hands. Finally there were the three Norfolk gentlemen John Patteson, Charles Collyer and Edward Roger Pratt who gave him important commissions from 1783 onwards, and introduced him to other potential clients.

Setting aside the repairs and redecorations which were a useful but uninspiring part of his early practice, Soane's first contribution to architecture was a pair of lodges built for Mr. Yorke's country house, Hamels,

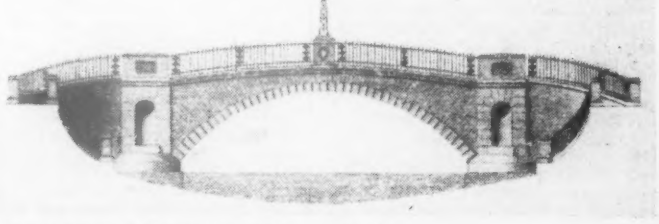
3, the Dairy at Hamels, Herts (water-colour by Soane).

near Buntingford (*title block*), followed by a dairy for the same client in January, 1783, 3, and a small bridge to span the river Wensum at Norwich, 4, designed in March and approved on April 2 of that year. The fourth was a wing added to the Rectory Manor House, Walthamstow, for William Cooke and begun in May; then came a cowhouse designed for George Smith at Marlesford Hall, Suffolk, in June. Of this quintette the lodges at Hamels and and the bridge at Norwich are the only survivors.

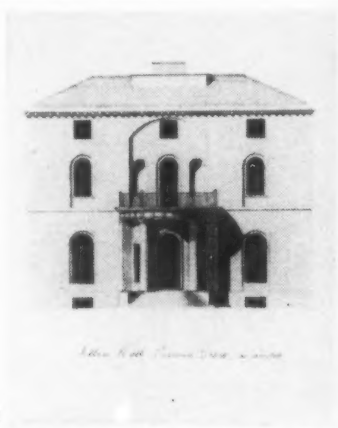
In 1783 Soane was 30, and although the hardest struggle was over (he had ventured to take the first floor suite of 53 Margaret Street for £40 a year, and had installed his own furniture), the chance of building an entirely new house had still not come his way. In July, however, Mr. B. G. Dillingham asked him for designs to replace an earlier building at Letton, 5 and 6, in Norfolk. The first set of drawings was complete in August, but work was not put in hand until the following May, by which time another request had come for a parsonage house to be built at Saxlingham, also in Norfolk, for the Reverend Mr. Gooch, and at almost the same time Soane was approached by Admiral Rowley about plans for a new house at Tendring in Suffolk (demolished 1956). These are all white brick with stone dressings, Letton being the largest, though its elegant entrance front, 5, with a segmental porch of Portland stone has been marred by Victorian additions. In 1785 Soane made the first of a number of alternative designs, 8, for Shotesham in Norfolk for Mr. Robert Fellowes, one of the most attractive of his country houses. Once again white brick was used, the pilasters being of Portland stone with Ionic capitals of Coade composition, 7.

Now commissions began to come in rapid succession. In 1785 Soane was asked to design a house at Blundeston for Mr. Nathaniel Rix—a house which is in every way a complete contrast to Shotesham. Of modest dimensions, it is built of red brick (intended by Soane to have been stuccoed but now painted white) and with its tall, thin, entrance façade, tiny ground floor windows, slate roof and sharply projecting eaves it has a singular hardness—one might almost say ugliness—which time has not softened.

Four minor works of this period must not be overlooked. They are a Music Room built for William Wynd-



4, Soane's drawing of his bridge over the Wensum, Norwich.



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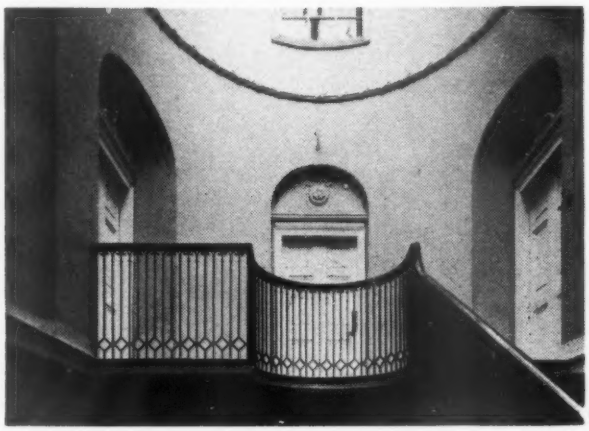
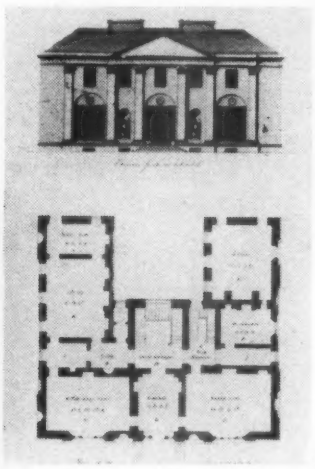


6

Letton Hall, *Norfolk, designed in 1783 for Mr. B. G. Dillingham:* 5, *pen and wash drawing showing the entrance front, altered in Victorian times.* 6, *interior, showing the first floor landing under an oval domed skylight.*

7



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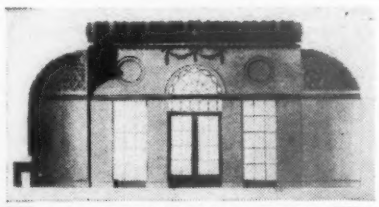
Shotesham, *Norfolk, for Robert Fellowes in 1785:* 7, *the brick facade; the pilasters are Portland stone, the Ionic capitals Coade stone.* 8, *one of several preliminary designs for the house.*

9

10

Langley Park, *Norfolk, the entrance screen:* 9, *Soane's drawing;* 10, *as it is today. Built towards the end of the 1780's for Sir Thomas Beauchamp, it shows the first signs of the 'Soane style' shortly to emerge.*



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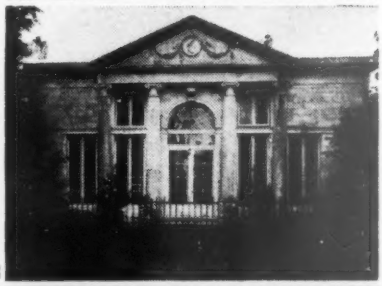
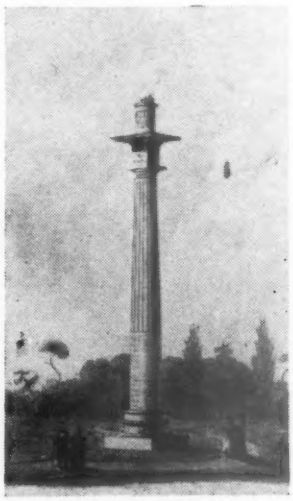


12

13

Earsham, *Norfolk, the music room, 1784, for William Wyndham:* 11, *engraving of the interior, by Soane.* 12, *the exterior.* 13, *the coffered ceiling.*



14, *column at Felbridge, Surrey, erected by James Evelyn to the memory of his parents.*

ham of Earsham in 1784, 11, a column erected as a memorial to his parents by James Evelyn of Felbridge, 14, entrances to Langley Park for Sir Thomas Beauchamp, and a library added to Holwood, Kent, for William Pitt. Of the library there is no record beyond a plan and Soane's bills, although he was later to make more extensive additions to this house. Mr. Evelyn's column—Doric, with a snake encircling its base carved by Soane's friend Edward Foxhall—was saved from destruction in the 1920's by the owner of an estate in Northumberland who transported it from Surrey and re-erected it in the park of Lemmington Hall. The Music Room has survived at Earsham, though it is now somewhat obscured by a shrubbery. Soane described it as 'Originally intended for a greenhouse and completed for that purpose but . . . since converted into a music room.' The Portland stone façade is enriched with Ionic columns and a pediment containing a medallion draped with garlands, 12. Inside, the walls are decorated with plaster swags and the ceiling is elaborately coffered, 13.

Both the entrances to Langley Park are standing. Designs for the first, consisting of a pair of lodges with windows set between three-quarter Doric columns, were submitted in August, 1784. For the second, designs continued to be made and altered from 1784 onwards, the earliest being embellished with a row of Ionic columns across its façade and recumbent lions over each of the lodges. These details were eliminated, and as executed towards the end of the decade, 9 and 10, it consisted of a plain brick arch set between two small brick blocks each containing a single room. Two oval pateras adorning the arch, and two ornamental chimney pots, are of Coade composition, but the greyhound supporters flanking the archway are of natural stone, and were supplied by the mason at a cost of £26 5s. 0d.

Of his early works, this second Langley gateway alone prophesies the 'Soane style' that was to emerge soon after 1790. In its lack of a blocking course for the wings, and its swept up central feature which is neither a pediment nor a gable and supports a top-knot like a cinerary urn, it edges away from the conventions of contemporary Georgian architecture.

The right date for concluding a list of Soane's first fruits is probably 1788. In that year he gathered up the best of his designs and published them in a folio volume dedicated to George III. In the same year he was appointed Architect and Surveyor to the Bank of England, and although some months were still to pass before the death of his wife's uncle, George Wyatt, brought him a fortune, his practise was firmly established. The days of subservience were over, and he could now afford to follow the advice of Philibert de l'Orme that 'an architect should be careful in his choice of a client.'

current architecture recent buildings of interest briefly illustrated

1, *the north front of the factory, with Harlescott Lane crossing the foreground.*

FACTORY AT SHREWSBURY

ARCHITECTS, WALTER MARMOREK AND LIONEL WEAVER

The clients, who are corset manufacturers, wanted a one-storey factory of 37,500 sq. ft. with a simple flow of production, minimum obstruction from columns in the production area, a high level of daylighting, flexibility to move and connect electric sewing machines and equipment over the whole area, good ventilation and a low noise level. The level site is in a new industrial estate lying to the west of the Whitchurch road about three miles from the town centre.

The calculated average daylight factor in the area is 10.5 per cent and the ratio of glass to floor area including clerestory windows is 37 per cent. The monitors are glazed with white plyglass to give light diffusion to eliminate glare and provide thermal insulation. Clerestory windows at high level round the perimeter of the tall block give draught-proof cross ventilation. To reduce the noise level generated by several hundred sewing and other machines, the wood

Factory at Shrewsbury

wool slabs used in the roof construction, to provide a decking and thermal insulation, were left exposed.

The steelwork is on a 27 ft. grid, and a 6 ft. 9 in. module, the latter to accommodate standard channel reinforced wood wool slabs used as roof decking. The roof girders, which are accommodated within the height of the monitors, are approximately 7 ft. high and span 54 ft. 4 in. and 60 ft. 5 in. They are supported on two broad flanged beams with stanchions of standard sections, in the centre and at the outer perimeter. An expansion joint is provided through the centre of the building and the roof is lifted 3 in. at the centre to drain towards the end of monitors.

The low buildings are also steel framed with wood wool decking and three layers of built up roofing.

External walls are non-load-bearing cavity and a curtain wall with infill panels of coloured plyglass runs round a great part of the low wing. Monitor ends have asbestos cladding. The floor is reinforced concrete slab with 3 in. screed incorporating an electric floor heating system.

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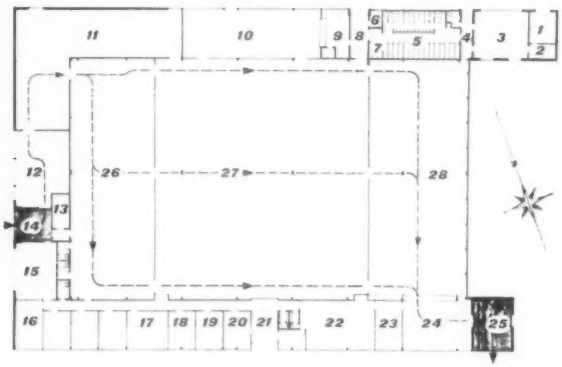
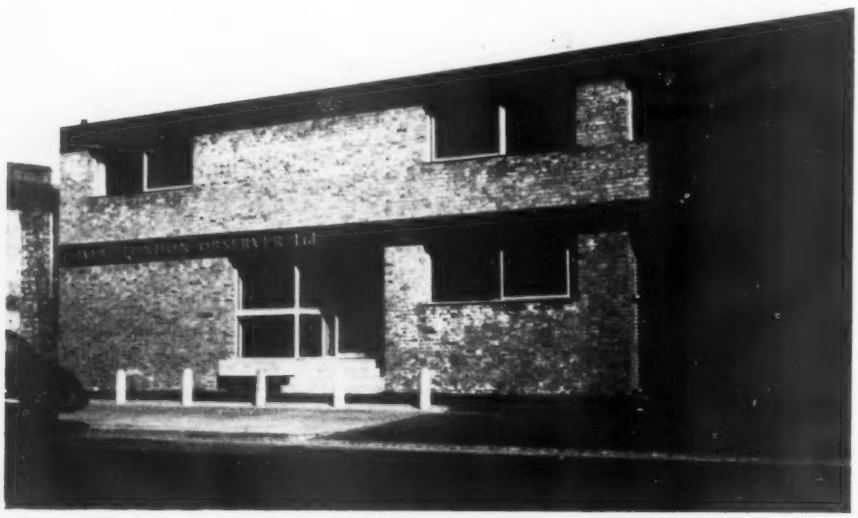
3

2, looking along the north front from the main entrance. 3, the entrance hall: the wall colour is dark brown, and the floor finish is thermoplastic tile.



key
1. transformers.
2. sub-station.
3. mechanics and carpenters.
4. lobby.
5. W.C.s.
6. rest room.
7. women's cloaks.
8. works entrance.
9. kitchen.
10. canteen.
11. raw materials.
12. unpacking, weighing and measuring.
13. outworkers office.
14. unloading bay.
15. stores and buying.
16. design.
17. director.
18. production control.
19. personnel and wages.
20. receptionist and telephone.
21. main entrance hall.
22. order department.
23. accounts.
24. despatch.
25. loading bay.
26. cutting.
27. main production.
28. finished stock.

scale: 1 80 in. = 1 ft.



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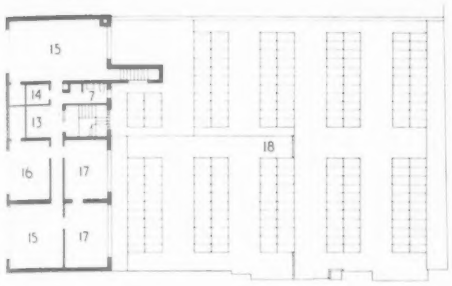
NEWSPAPER OFFICE IN WEST LONDON

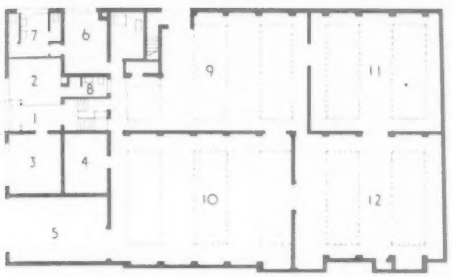
ARCHITECT, JOHN G. FRYMAN

The Cromwell Road extension to Hammersmith Broadway involved the demolition of the long-established offices and works of the West London Observer Ltd. An alternative site was found in Latimer Road, W.10, the building was commissioned in January, 1955, and completed

4, the entrance front, facing west. The fascia is Welsh blue slate, the lettering is in gold.



first floor



50 40 30 20 10 0 10
scale of feet

ground floor

key

1, entrance.
2, enquiries.
3, library.
4, stationery store.
5, paper store.
6, mess room.
7, men's lavatory.
8, women's lavatory.
9, job room.
10, main press room.
11, linotype room.
12, composing room.
13, waiting room.
14, tea.
15, director's offices.
16, editorial.
17, general offices.
18, glazed roof.

5, the entrance. The steps and flower box are faced in terrazzo.

in August, 1956. It consists of a main press room, linotype, composing and job rooms with paper stores, etc., and associated staff facilities, and has a two-storey office block on the front.

Construction is generally load-bearing brickwork with reinforced concrete floors and roofs; windows are large timber-framed sliding sashes with slate cills. The yellow stock facings are enclosed with polished Welsh blue slate bands and copings; fascia lettering is carved and gilt.

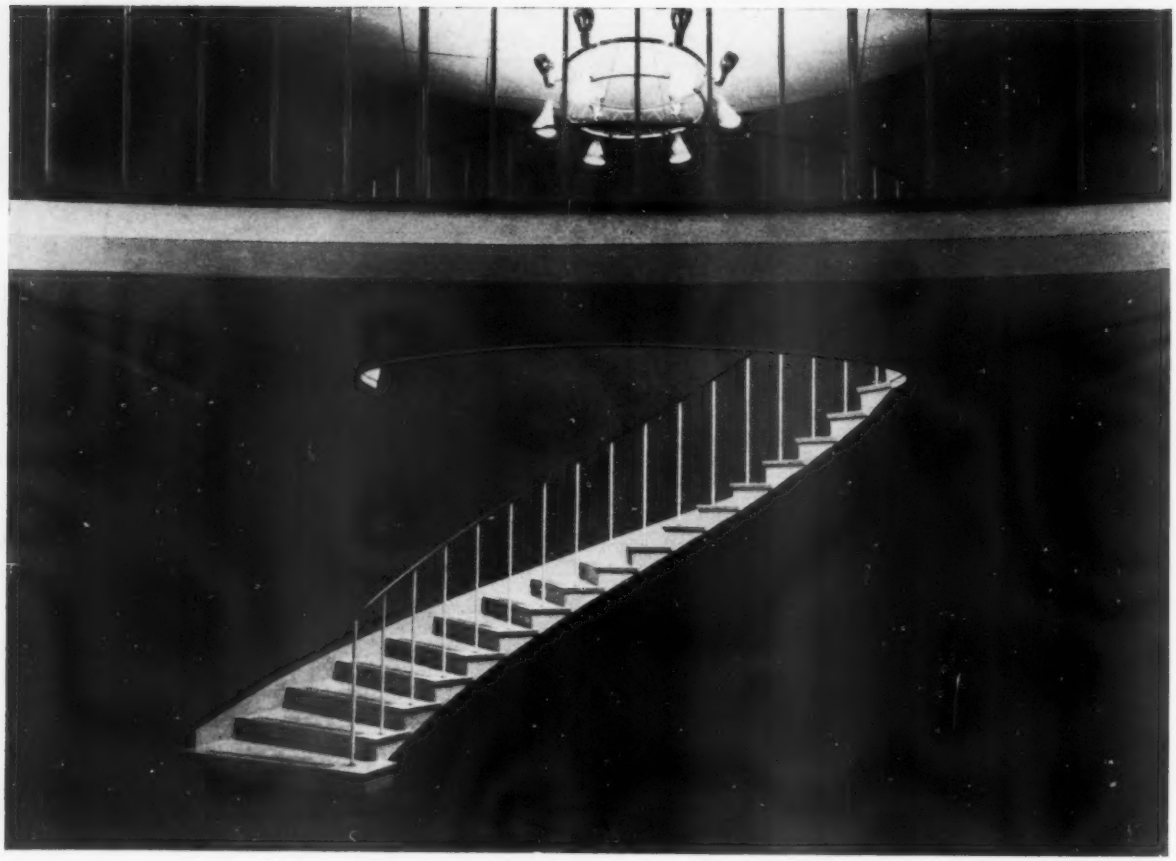
6, the west front with the entrance hall in the centre. Brick and woodwork are white, and soffits green.

STAFF COLLEGE AT HENLEY-ON-THAMES

ARCHITECT, GEDDES HYSLOP

The Administrative Staff College was started in 1946 in a house on the banks of the Thames, but the residential block, completed in November, 1955, is the first completely new building and contains forty study-bedrooms.

Walls are 11-in. cavity; the outer skin is of Uxbridge flint bricks and the inner of clinker blocks, which are also used for partitions. The first floor is of



7

Staff College at Henley-on-Thames

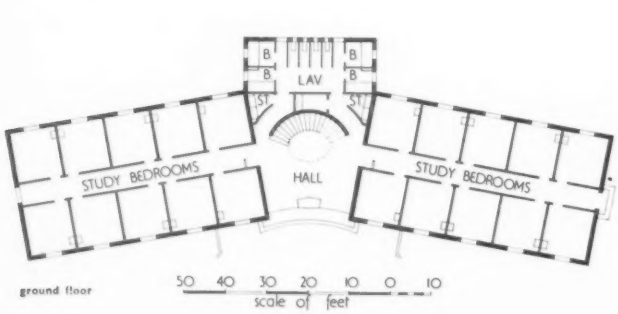
8

hollow tile and the roof is supported on steel trusses carrying timber rafters and ceiling joists, and covered with insulated copper roofing.

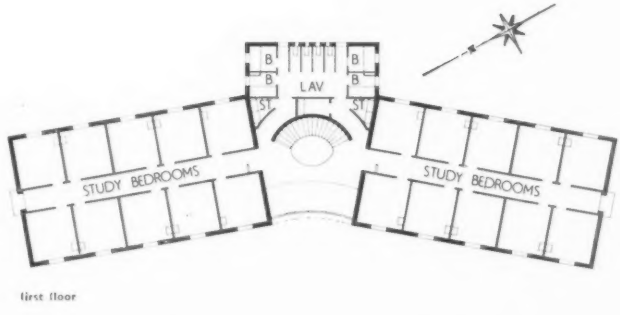
The semi-circular stair has pre-cast steps with terrazzo finish, and is built into a 9 in. brick wall. Bedroom windows are timber sashes; those in the hall and elsewhere are steel, the large hall window being double glazed. Cills are slate projecting internally to form window boards which overhang the radiators. Radiators and domestic hot water are supplied by an underground duct from the central boiler house about 160 yards away. No pipes show externally.

The floors of the hall, bedrooms and passages are cork, and bathrooms and lavatories asphalt tile. The glazed swing doors from the corridors to the hall are African mahogany and external steps are slate; corridors and hall ceilings are finished with perforated acoustic tiles.

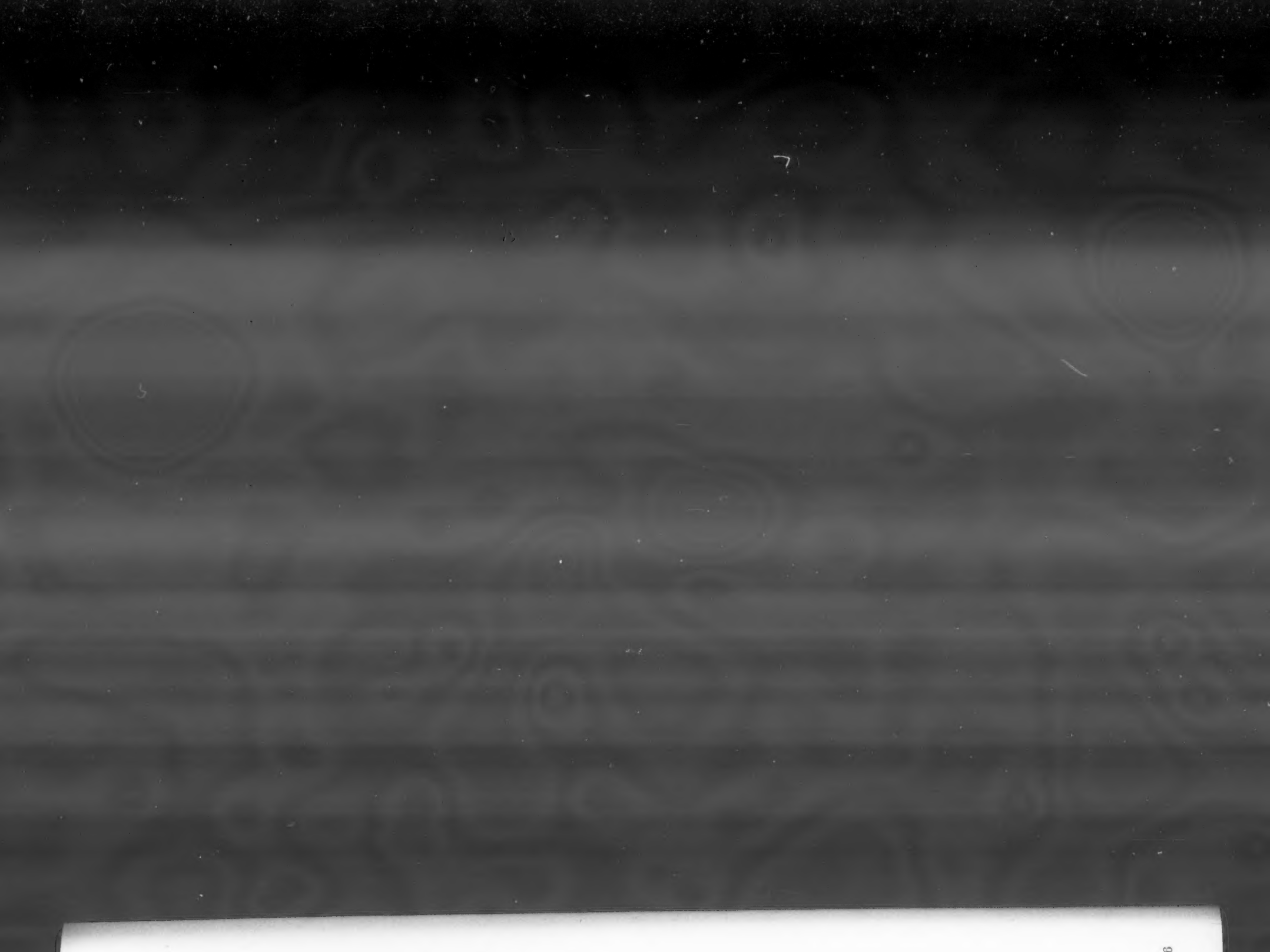
7, the stair from the entrance hall. The back wall is painted Indian red and the balustrading grey; the cork tile floor incorporates the college crest. 8, the college from the east.



ground floor



first floor



HISTORY

PALM HOUSE AT KEW

After various rumours to the contrary, and after the sudden reappearance of the Coronation arches and their equally fast disappearance, the Palm House at Kew, 1, *will by the end of the Spring be made as good as new and as handsome.* For the handsomeness Decimus Burton has very generally been praised and indeed the Palm House is, after the Athenaeum and the Hyde Park screen, his most famous work. His responsibility has long been established and only recently Mr. Colvin has confirmed it. More recently still, however, Professor Henry-Russell Hitchcock in his double-decker sowed the seeds of doubt. What Professor Hitchcock did was to bring forward the name of an engineer. 'The ironwork was provided by Richard Turner of Dublin, who was soon also undertaking to span the considerably broader shed of Lime Street II.' After commending the structure Professor Hitchcock added: 'Whether this ornamental restraint combined with real grace of expression should be credited to Turner or Burton is not clear.'

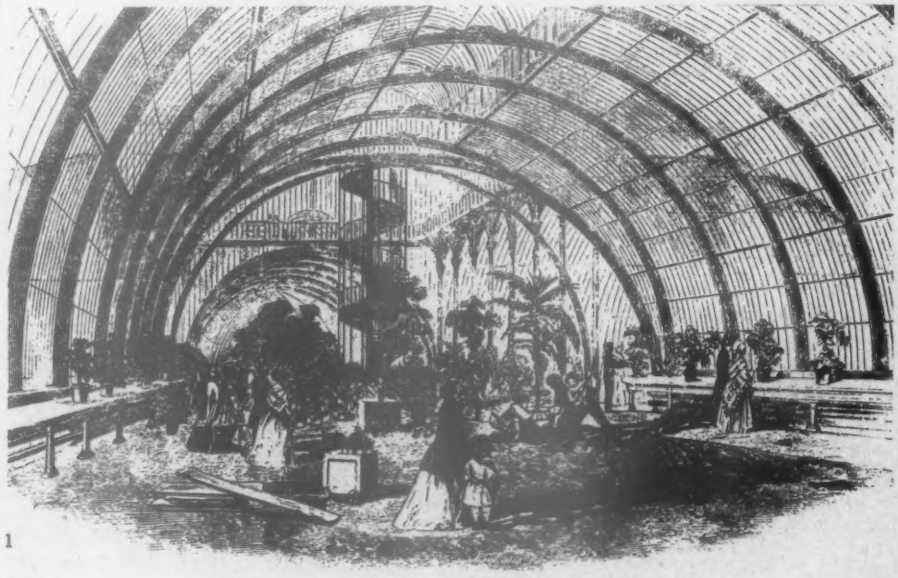
Irishmen are always protesting about the travesty of the stage-Irishman but if anything derogatory is written about them they start behaving from like something out of Charles Lever. So when seventy-five years ago Maurice Adams wrote some articles on conservatory buildings for the *Building News* and said that Burton built the Kew Palm House things began to happen. Over in Ireland Thomas Drew read the article and discovered that his old friend Turner had been done out of the credit. He wrote off to Turner to get the necessary facts and then to the *Building News*. 'Many middle-aged architects will remember Mr. Turner in his vigorous days when he was ubiquitous, with a stock of daring and original projects always on hand, remarkable for his rough-and-ready powers of illustration of them, and sanguine belief in them, and his eloquent, plausible, and humorous advocacy of them. . . . As he is still extant and vigorous, although advanced in years and retired, I have obtained an authoritative statement from him, that the palm-house was not only erected by him, but was solely his design, although carried out under the supervision of Mr. Decimus Burton.' According to Turner Sir W. J. Hooker, the Curator of the Gardens, accepted his designs but when the plans reached the Board of Works they were discarded and, in Turner's words, 'a most absurd set of plans was produced by Burton, with the help of an engineer.' However, Turner persuaded the Duke of Newcastle to intervene and in the end he triumphed. To display the merits of his design and its strength—it must have looked a pretty risky affair to the public servants—he had a section built in the yards of Messrs. Grissel and Peto and it was there successfully tested. 'Anything more foreign from Mr. Burton's design it would be difficult to imagine,' Turner concluded.

Maurice Adams meekly replied that it was always stated that Burton was the responsible architect and he had assumed this to be true and moreover he had got from Burton an entire set of tracings from the working drawings inscribed with his name as the architect.

The editor of the *Building News* was too wily to fall into any trap. He knew his history, he knew all about Who Was The Art Architect Of The Houses Of Parliament? and he wasn't going to be made responsible for a new dog-fight called Who Was The Art Architect Of The Palm House At Kew? He applied very wisely to Mr. J. Smith, the ex-Curator of the Gardens. Smith had been on the spot at the time and he confirmed what Drew had written and added that Burton's plans had been useless because of the superabundance of pillars—plenty of taste but no room for the palms. He reported that Turner said to him: 'Give me a piece of paper and I will show you what it is going to be.' Smith recorded: 'He took the paper, folding it to make a crease in the middle, then, with a pen, quickly traced a vertical profile of one half of the intended house, on one side of the crease, then, folding the other half of the paper on the inked part, and, on opening it, there was a section of the whole length of the palm-house, as it was afterwards erected, and which proved satisfactory to me as far as the accommodation and growth of the plants were concerned.' It was Smith's notion, so he admitted, to use tinted glass.

After the letter from the ex-Curator no-one else wrote, not Burton himself nor any of his friends. Obviously enough it was agreed that Turner's claim had been indisputably established—the working drawings proved nothing since Burton was supervising and since architects before and after him signed other people's inventions with a very good grace and no qualms of conscience. It is a curious fact that after so quick a victory for Turner the memory of it should so completely have vanished. Burton, having been knocked out, was agreed to have won on points.

In accounts of the unhappy relations between architects and engineers in the



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nineteenth century the engineers seem steadily to be getting the better of it. Surely it is up to a registered-architect-scholar to take Waterloo Bridge from Rennie and present it to J. L. Bond, for the honour of the profession?

Peter Ferriday

EXHIBITIONS

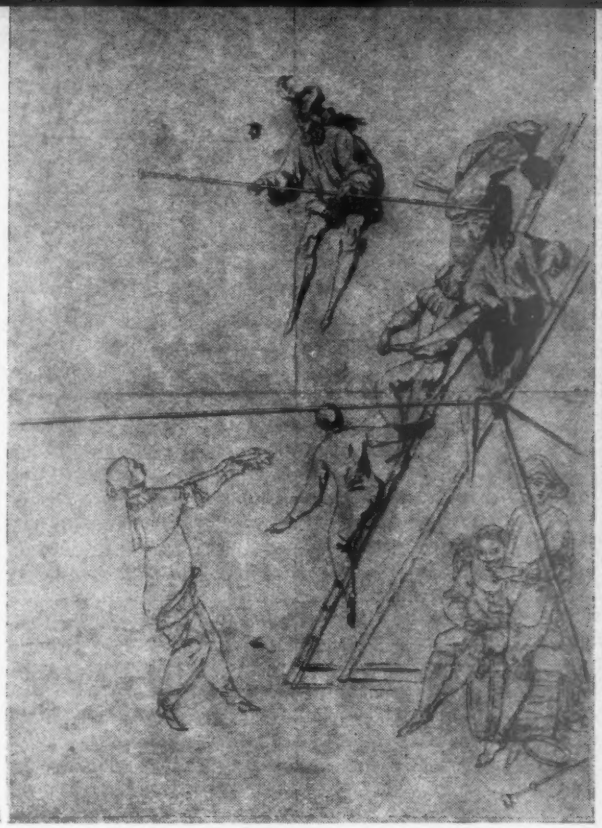
PAINTING AND SCULPTURE

Marked, perhaps, by the way in which Mr. Douglas Cooper's brilliantly persuasive catalogue numbed the critics and reduced comment on Braque's achievement to a devotional hush, I was reminded by the Braque Retrospective that Picasso's infinitely richer contribution to painting has not yet been presented in London with anything like the same adequacy. Braque is the leading mandarin of French painting, and the selection from fifty years of his work created so consistent an effect of ceremonious arrangement and magisterial tastefulness that I had the impression that he was observing some courtly code which discountenanced the expression of thought and feeling.

Mr. Cooper's study of Braque's development is as objective as his enthusiasm will allow, and although it was a foregone conclusion that he would consider Braque to be the inventor of cubism, he conducted his researches with impeccable scholarship, and no one is likely to challenge his dating of the pictures which he finds relevant to the problem. He assigns the first cubist pictures to Braque on the evidence of some 'cubes' in the landscapes he painted at L'Estraque in the summer of 1908. But it has always seemed to me that the sharp facet is more important in cubism than the representation of cubes, and there were sharp facets in some nudes painted by Picasso in the Spring of the same year.

A particularly fine example of Picasso's analytical cubism—the portrait of Uhde—was included in the I.C.A. exhibition called 'Picasso Himself.' It was treated purely as a document; it had been taken out of its frame, put into a mean little baguette and given a corner on one of the many screens covered by photographs and souvenirs, and from a distance its yellowish grey colour and the fragmentation of its forms gave it the look of those discoloured strips of newsprint which appear in some cubist drawings made by Picasso and Braque in 1912 and 1913. In Picasso's *papier collés* these bits of newsprint stick out like sore thumbs, intentionally so; but in Braque's work they assume a kind of mellowness and refinement. The one was interested in disruptions, the other in reconciliations.

Signor Argan has pointed out (in his preface to the catalogue of Mr. Estorick's large, ambitious, open-minded but extremely unbalanced collection of twentieth-century Italian paintings and sculpture, which followed the Braque show at the Tate) that it has now become clear 'that cubism did not solve the problems and reconcile the contradictions, simply because all these problems were not purely artistic ones but were part of the culture, the civilization and the conscience of Europe'. Yet Braque's cubist *papier collés* are exquisite arrangements of arbitrary elements, 2, and by specializing in the *nature morte* he has been able to apply the same principle in his paintings, so it can be claimed for Braque that on a purely artistic plane involving a strategic withdrawal from the human situation, he has often succeeded in reconciling innocuous contradictions.



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If I have been more enchanted by the drawing of acrobats, 1, by Claude Gillot, which I saw at the fascinating Arts Council exhibition of sixteenth- and seventeenth-century Theatre Design in Paris, it is possibly for the vulgar reason that it has more human interest than the work of Braque. But I also think that Gillot's draughtsmanship is more sensitive and his feeling for 'arrangement' more daring, and that it is even closer to the spirit of Rilke's fifth elegy than Picasso's *Les Saltimbanques*, which inspired it, for here, indeed, are the 'lofty figures of heart-flight, their towers of pleasure, their ladders just quiveringly propped by each other'.

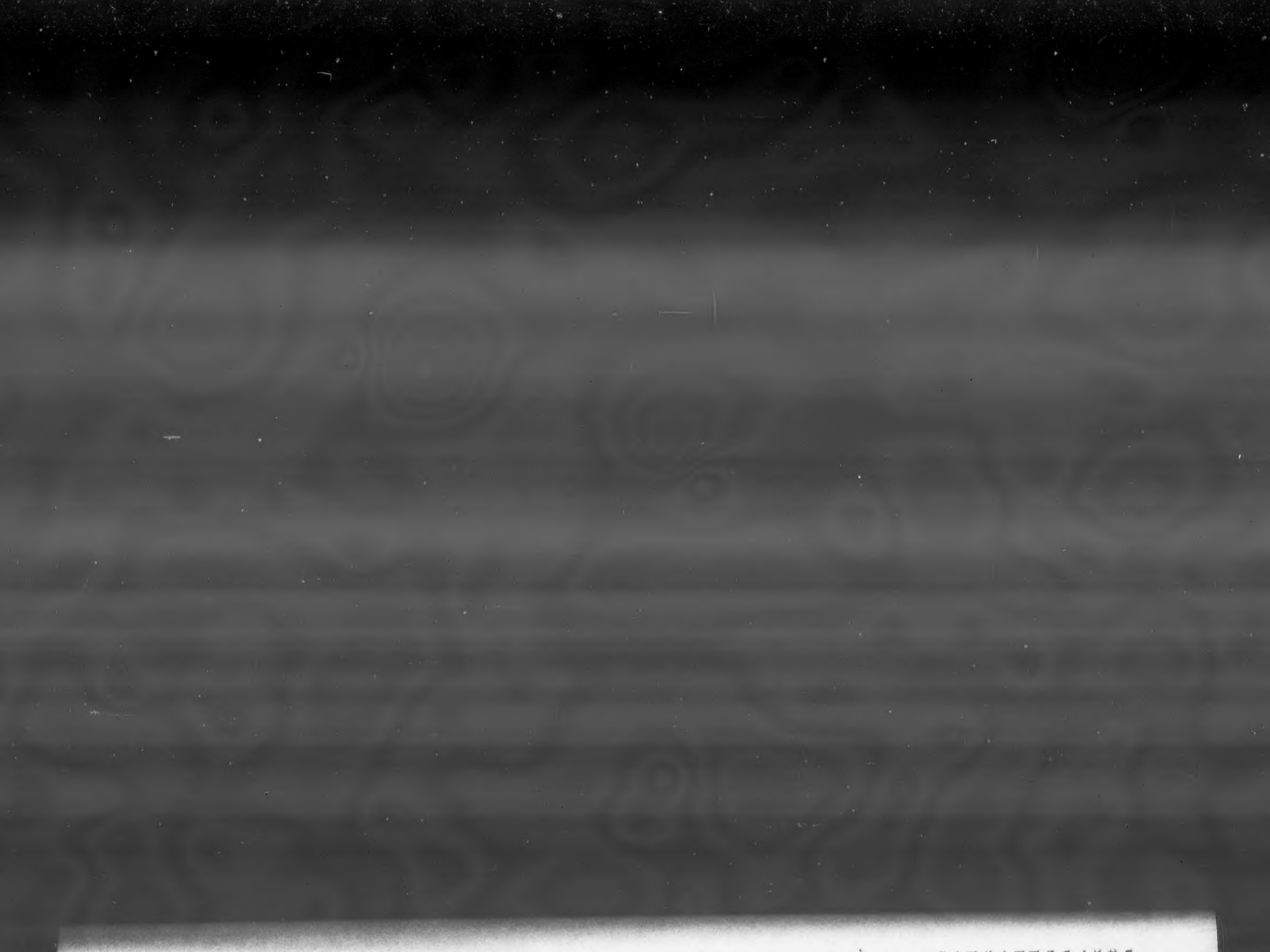
William Scott seems suddenly to have felt the need to reflect rather more of himself in his canvases than his professional concern with pictorial values. In his recent show at the Hanover Gallery he exposed some paintings of the nude that expressed a not entirely respectful delight in the female figure, and even his pots and pans have become somewhat boisterous. His anatomical deformations are both comic and horrible, 3, but they have rid his work of the last trace of aesthetic pomposity.

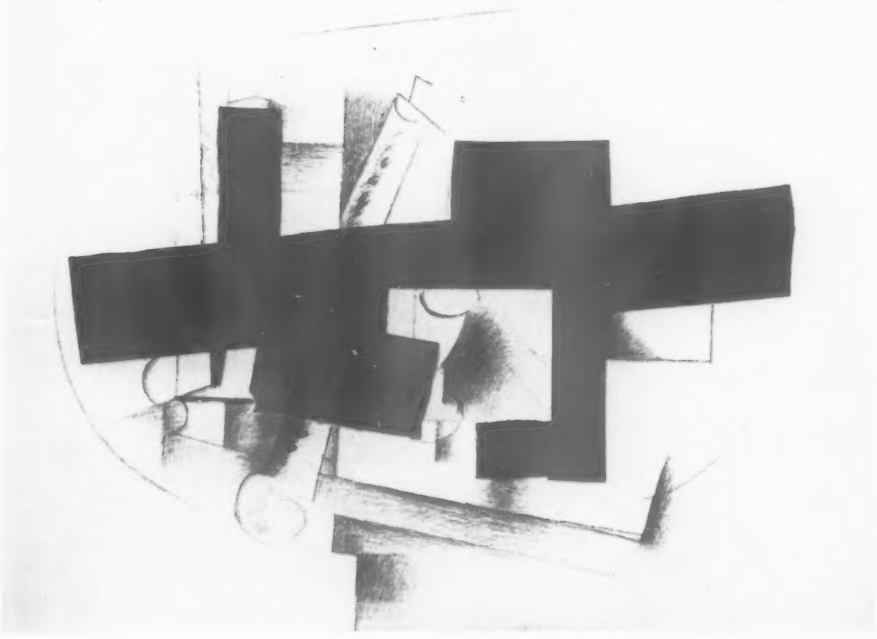
Max Ernst has gone off in the opposite direction. The recent paintings in his rather haphazard Retrospective at the Matthiesen Gallery are aesthetic souvenirs of some of the fabulous results of past poetic escapades. Something rather pathetic has happened in the process, and the man whose sardonic experiments in automatism led his work into a mysterious relationship with the art of Altdorfer and Hercules Seghers has become a solemn purveyor of interplanetary fantasies, 4, which look like unimaginative pastiches of Paul Klee.

Different again is Manzú's position. His second exhibition at the Hanover Gallery bore a very strong resemblance to the first, but the budding grove of naked young girls presided over by grim clerics in conical vestments retained its *frisson*. I reproduce one aspect of this rather perverse situation, 5, to show that if Manzú himself is roused by its ambiguities the results can be separated without loss.

The Academy exhibition of British Portraits is a triumph for the eighteenth-century painter Allan Ramsay. His likenesses have an introspective cast; they are serious attempts to evaluate human personality and remind us that at such a level the making of a portrait is the most intimate of all acts. After Ramsay, portraiture of this kind does not recur until our own time, though G. F. Watts seemed sometimes on the verge of it. It confronts us again in the portraits of Gwen John, in Sutherland's tense study of the Hon. Edward Sackville-West, 6, and in the work of an artist who, inexplicably, is not represented in the Academy show, William Coldstream.

Robert Melville





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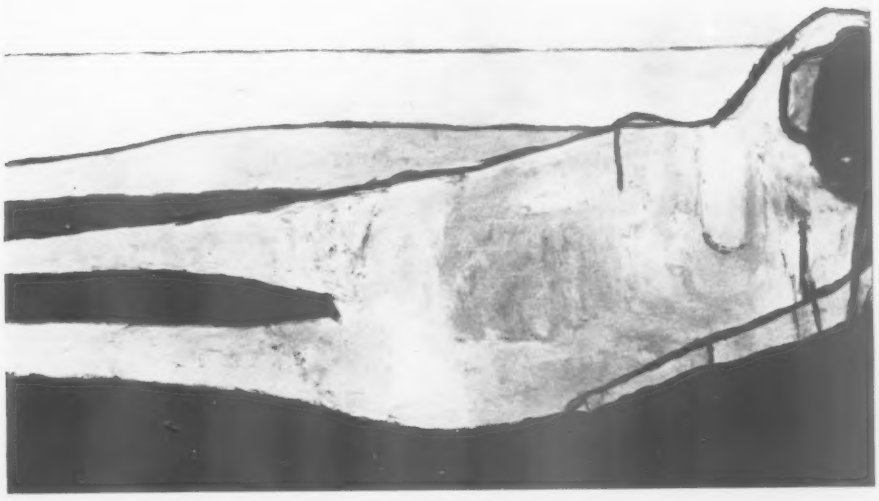

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ARCHITECTURE

THE ADAPTABLE HOUSE

A building that fits its function like a glove may become a strait-jacket as the function changes, a structure that brings the benefits of standardization may bring its penalties too—may do, but neither need do so.

Flexibility of plan and adaptability of use within a standard frame are admirably demonstrated by a row of three houses near Oslo, designed by Arne Korsmö and Christian Norberg-Schulz, and completed in 1955.

The main structure of each of the three houses is largely standardized, and the steel frame of the two-storey parts is completely so (see also the frontispiece to this issue, p. 84). But within the given space-cage a variety of planning solutions have been realized. Externally this is revealed in the differing fenestration of the Korsmö house, 1, and the Schulz house, 2—a difference that derives from the dispositions of the interiors. In the Korsmö house the entire ground floor of this part is treated as a single uninterrupted room, 3, which does not, however, break upwards into the floor above, but in the Schulz house full use is made of the double height of the main windows, 4, and the bedrooms on the floor above have balconies overlooking the well thus created.

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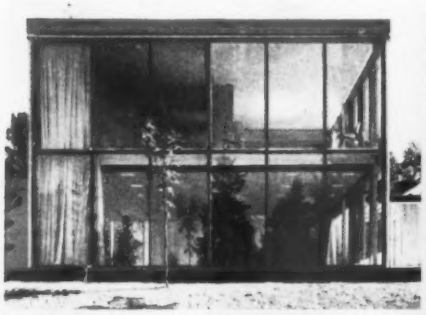
But if, at a later date, the occupants' requirements should change, this well could be floored over and the bedrooms brought up to the outer wall, a type of flexibility that is assisted, not obstructed, by the standard structure employed.

But there is another kind of flexibility of use that can only be answered by the day-to-day mobility of the elements of the house and its equipment. In the Korsmö house, for instance, the occupants' activities include model-making, work in enamels and ceramics, and entertaining that embraces discussions and the projection of slides, films, etc. For such semi-public occasions, the staircase seen in 3 can be swung out of the way and the 'landing' on which it rests can be removed, thus freeing that corner of the room, while the removal of the screens and the steps in 5 permits the conversion of the hall into a kind of stage, 6. Similarly, in the Korsmö's kitchen, all the cooking and laundry equipment can be shut away behind doors, and the opening of other doors reveals the do-it-yourself tackle, 7, while if all doors are left shut, there remains a neutral area of room-space, 8, that can be added to other areas in use for entertaining or whatever the needs of the hour may be. P.R.B.



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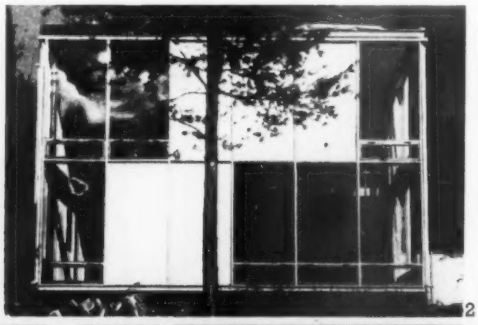

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TRAVEL

PICTURESQUE IN THE PRESIDENCIES

Many distinguished camera eyes have been trained on the Indian scene in the last few years, but few have been focused on any part of British India, except the inevitable splendours of New Delhi. We have seen magnificent views of Chandigarh and

sympathetic studies of vernacular building, abstract images of the geometry of Jai Singh's observatory and mysterious ones of the cave-temples of Ellora and Ajanta, but the substantial monuments left on Indian soil by the East India Company and the British Raj have remained almost unphotographed until Roderick Cameron's recent foray, whose results will be published in book form, as *Shadows from India*,* later in the year.

Yet the Cameron photographs suggest most forcibly that this neglect is unjustified, and that where an Anglo-Indian architectural tradition had time to mature fully, as in the Company's three 'Presi-

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dencies' of Madras, Bombay and Calcutta, it produced buildings comparable with those of the Caribbean or the Old South, and in one respect surpasses all other Euro-tropical architecture—in that it is rich in bold Neo-classicism. Nowhere else does the tropical sun fall on forms so apt to its dramatic shadows as the pure Doric—the Doric of the Thesecion - of the porticoes of the Old Town Hall at Bombay, 3, and nowhere else can pure Greek forms be seen in so eloquent a juxtaposition as they are here, confronted with a row of

* To be published by Heinemann in August.

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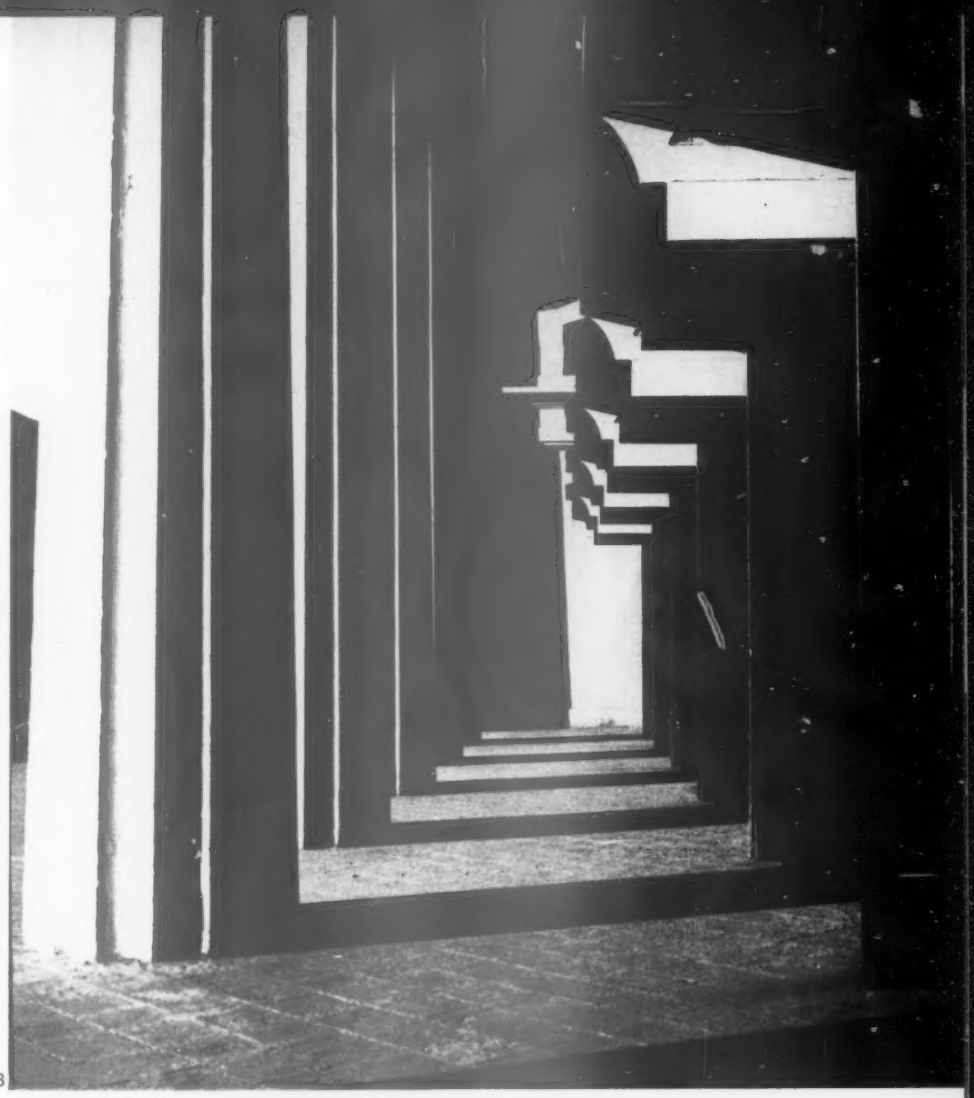

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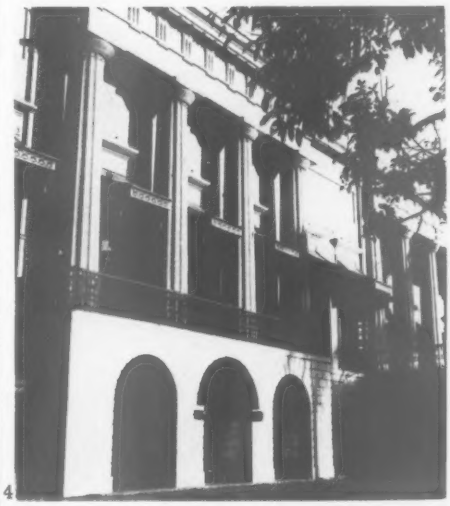

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box-shuttered doors with strange side-glazing in their heads. Such confrontations of European art and native artifice are not rare in the tropics, but here there are implied a British source; the mind and style of the Regency.

The quality is so Regency on some occasions that 5 could almost be a vignette from Regent's Park, though in fact it comes from Calcutta—a lush image of urban arcadia—and equally Regency are the undercut basement, the high colonnaded balcony (Doric again) of the Calcutta merchant house seen in 1. Indeed it is to Nash directly that one must compare the façades of some of the major official buildings of British India. The exterior of Bombay Town Hall shows that its soldier-architect, Colonel Cooper, could rank his porticoes in the true manner of the Nash terraces, 4, while Captain Wyatt's design for Government House in Calcutta, 2, though eclectic, and begun as early as 1799, is clearly of the same persuasion.

What makes this clear is not only the building itself, but the way in which its triumphal-arch entrances—similar in form

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to those of Cumberland Terrace, similar in function to those of Chester Terrace—frame and control the view across its pavilions, 6. These views suggest the dominance of a trained and sophisticated picturesque vision in British India; James Frazer's slightly later views of the Calcutta scene confirm it. In his magnificent view of precisely one of these gates, 7, it is seen grandiosely dramatic, though without falsification of its scale, undwarfed then by trees and silhouetted against a

8

sky as vast as the perspective that tapers away to the portico of the Scotch Church in the distance. Frazer shows us that in his India the Picturesque took on a tangibility that it was losing in Europe.

The high-porticoed merchant houses in 8, looking down on the Loll Bazaar, had for a foreground a race of men far more sharply contrasted against the architecture than the rag-clad *banditti* of Romantic painting. Wherever Frazer turned his

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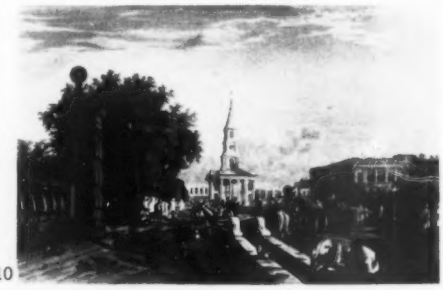
observant eye in Calcutta, he saw this picturesque population, as alien to the buildings as the birds that aped the function of parapet statuary, 9 and 10. At a time when the *staffage* in the fore-



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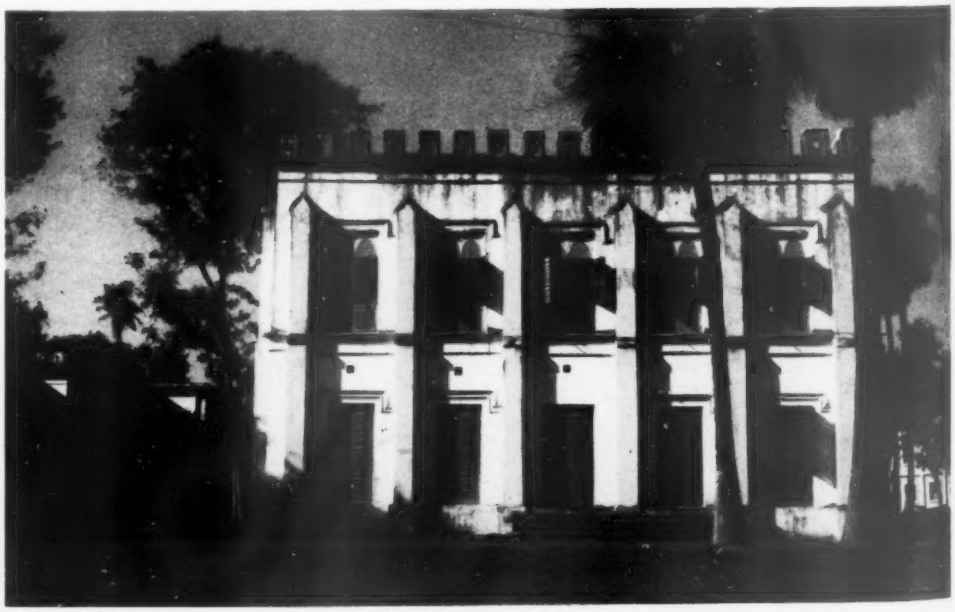
ground of the Italian scene, disoriented by Napoleonic Wars and egalitarian politics, were developing ideas above their stations, those of Calcutta remained in their places, socially and pictorially.

Given these scenic advantages, given the sophisticated sensibility, it can hardly surprise us that British India went on to develop—had already developed—the full gamut of artefacts proper to the Picturesque, from Romantic revivalism to relaxed *Villeggiatura*. Madras can offer a sample of pure Gothick—not the hard-faced export-ecclesiology of the Victorian epoch, but a true expression of Gothick fantasy, 11, complete with crenellations, buttresses, and nine such purely pattern-book dripstones over the windows that one wonders what fanciful flourish is missing from over the central doorway.

The cultivation of *Villeggiatura* takes us inevitably beyond the confines of the Presidencies, and deeper into the nineteenth century, but even its most contrasted manifestations seem securely related to that favourite late-Regency theme of the Swiss Cottage. On the one hand there is the strict territorial and psychological equivalent of the chalet; the houseboats of



11

12

Kashmir, remote and fret-worked dream-palaces, 12, far removed from the heat and bustle of the mercantile or military life, that are as true to the best traditions of riparian fantasy as Steam-boat Gothic, but phrased in an idiom so unmistakably vernacular as to be authentic folk art.

13

On the other hand, there is the attempt of sophisticated people to re-create that folk-fantasy at home, as in this house at Poona, 13, where buttresses as business-like as those on a house by Voysey, frame canopies where barge-boarding and dag-work achieve effects as fanciful as their function (as sun-breakers) is practical. The result is entirely Anglo-Indian; St. John's Wood was never like this, but neither was the Taj Mahal. Its manifest authenticity as architectural expression makes one hope that Roderick Cameron's photographs will inspire some budding Summerson to chronicle the building-history of British India, the hot-house of the Picturesque.

Michel Santiago

OUTRAGE

TOMORROW'S OUTRAGE

Planning proposals for the next twenty years, when complete, are codified into a Development Plan—very sketchy for the countryside, very precise for the towns. They are reviewed after every five years: the first Development Plan to be approved, that for the County Borough of West Hartlepool, came up for review last November. Thinking it likely that the proposals might reflect the worst features of planning in the town-hating decades,

tomorrow's outrage: *West Hartlepool's three virtues—a bustling and virile town centre, 1, the old nucleus of Seaton Carew, 2, and unspoilt country near at hand to the west, 3. On the right are the agents of complete disintegration: housing on open country taken in by a boundary extension, 4, disused land near the centre, 5, and the provision of 'open space' which looks fine on paper but not on the ground, 6.*

1

2

3

the 'twenties to the 'forties, we carried out our own short review of the plan; the sad results are printed below. It is likely that most towns have similar proposals incorporated in their development plans: the five-yearly review does offer some chance of altering them, and should be followed up urgently by local societies. The alternative, for all but a few 'preserved' towns, is pretty grim.

West Hartlepool is a Victorian New Town and coal port—begun 1855—next to the old and now shattered town of Hartlepool on the Durham coast. It would be few people's first choice to live in, but it has got three assets: first, a cheerful bustling town centre, 1—no architectural value, but alive, exactly fitting the size of the town and without traffic problems. Second, an old seaside village, Seaton Carew, now unhappily inside the borough boundary, 2. Third, countryside within walking distance of the centre of the town, 3 (and, moreover, countryside which is still not industrialized).

Now look at the Town Map and the accompanying report. Almost deliberately and wilfully this trio of advantages will be wiped out. First, the centre is to be redeveloped in the New Town way to become an anti-social set of social amenities. This poor misused area is going to contain:—

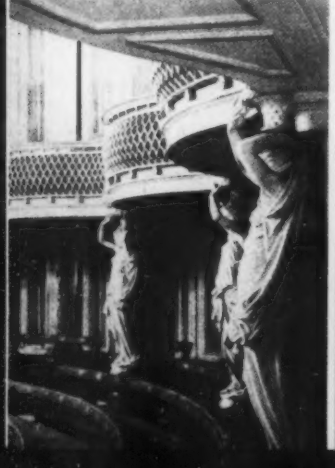
> four fragmentation open spaces, one primary school and grounds, one secondary school and grounds, one 'area reserved for local government offices,' and one bus station.

To paraphrase Henry Reed, in utter exasperation: whatever you do, *don't* make the bleeder into a town centre.

Second: one of the stated purposes of the development plan is the 'satisfactory development of Seaton Carew as a holiday resort.' This involves the removal of existing buildings between the Seaton Hotel and the Marine Hotel as shops. The 'existing buildings' are the view in 2. No need to imagine the shops that will replace them or to guess what Seaton Carew will look like as a 'satisfactory holiday resort.'

Third: the countryside has largely gone already in the first five years: that shown in 3 is due to go. It is replaced by the familiar pattern of housing, 4, while areas like 5 remain derelict (and possibly have never been built on) near the centre. The housing in 4 is out over the borough boundary as shown on the Town Map. There is no reference to a boundary extension in the report: it has been quietly pencilled on the MOHLG copy of the map, and is only too evident in the flesh, several acres of it eating away the Durham countryside. In return there is a lot of green (public open space) on the Town Map. The largest part is actually, though it is hard to credit, the area between low and high tide on the beach! Another wedge is an 'open space system from the south-west' and consists of 'school sites with playing fields, Stranton cemetery and a narrow strip of allotment gardens' —here is part of it, 6.

Is this planning, or meticulously organized chaos? Can towns like this be trusted to plan themselves and the surrounding countryside at all? **Ian Nairn**



3

BOOKS

THE LOWRY COUNTRY

THE LANCASHIRE ARCHITECTURAL GUIDE. *By P. Fleetwood-Hesketh. Murray 28s.*

The third of the new series of Murray guides, and bursting at the seams, as any good book on Lancashire must be: it will be a revelation to those who think that worthwhile provincial building stops somewhere just north of Warwick, Shrewsbury and Stamford.

Mr. Fleetwood-Hesketh has produced a sober and coherent picture of Lancashire building as a close reflection of national architectural styles. My own idea of the virtues of the county may be cranky and out-of-fashion; but I think that Lancashire buildings are at their best when they are most provincial and least correct, and I would have liked to have seen more of these in the illustrations; for example, Stidd almshouses with their monstrous frontispiece, the seaside architecture of Blackpool, Billinge church, Manchester warehouses, Edgar Wood and Sellars' Art Nouveau buildings: in particular I was disappointed, as I think most REVIEW readers will be, by the post-war selection—one of Robert Atkinson's brick cathedrals and some urban sprawl at Speke.

But there is plenty to look at. Some of it may not be there much longer: few counties have so many interesting buildings to the acre and few counties have been so careless about them.* The tower of St. Luke's at Liverpool (page 101) is doomed, if the competition winner's design gets built, to be replaced by a poor wee affair of half the size and vitality. Emmott Hall and Parbold are patently empty and ripe for demolition in the illustrations (pages 72 and 64): West Dingle looks on the point of collapse (page 91). Liverpool Corporation have just recommended the demolition of most of Allerton House: Carr House at Bretherton has fallen empty since the book went to press, the only virile building on that awful thirty-mile monument to the meanest kind of residential subtopia—A59 from Preston to Liverpool.

Lancashire may lose through well-meaning improvement as well as philistinism, through reclamation in the wrong way of areas whose character is caught so beautifully in the first description in the Gazetteer:

> 'ABRAM. South east of Wigan. Sett-paved roads and cinder paths; collieries, railways and the Leeds and Liverpool Canal. The wet fields are divided by skimpy hawthorn hedges. The few trees are stunted and black.'

That is L. S. Lowry's Lancashire, grim but alive, and its virtues are worth a long look before being thrown away. **Ian Nairn**

*Liverpool, through bombs, neglect, and irresponsibility, now has only a fraction of the worthwhile buildings that it had in 1939, and is rapidly building itself the worst post-war city centre in the country as well.

books: the Lowry country. *Above, a doorcase dated 1733 at Knowsley, one of a number of local examples of plasterwork which is as Baroque as any in the country. On the facing page, the two sides of Liverpudlian architecture in 1850: left and centre, two views of the concert room in St. George's Hall, by Elmes and Cockerell. Right, a warehouse in Albert Dock, designed under Jesse Hartley, the Dock Surveyor.*

STRANGE, POTENT, INIMITABLE

THE JAPANESE HOUSE AND GARDEN. *By Tetsuro Yoshida. Architectural Press, London 60s.*

THE ARCHITECTURE OF JAPAN. *By Arthur Drexler. The Museum of Modern Art, New York.*

CONTEMPORARY ARCHITECTURE OF JAPAN. *By Shinji Koike. Shokokusha Publishing Co., Inc., Tokyo.*

It never rains but it pours. No book on Japanese architecture has appeared in English, I believe, for nearly twenty years; now three are available (the volume in the Pelican Art History, with the section on architecture by Alexander C. Soper, was reviewed in AR, Aug. '56, page 124). Yoshida's book is a translation by Marcus G. Simms of the second edition, issued in German in 1954, of the author's treatise originally published in Germany in 1935. Drexler's book is related to the phenomenally successful showing of a complete Japanese house and garden at the Museum of Modern Art in New York during the summers of 1954 and 1955, although only a final Supplement of 15 pages is devoted specifically to that exhibit. Yoshida's book is entirely concerned with traditional house-architecture; Drexler's with Japanese architecture other than domestic as well as with houses. He also includes a very selective coverage of modern building, with which Koike's book (with Japanese and English text) deals more extensively.

For almost a century, since Godwin stripped his rooms in Bristol in the early 1860s to a near-oriental nudity and Nesfield began to exploit Japanese motifs in his architectural ornament, the arts of Japan have been of recurrent interest to the architects of the Western World—I say 'arts' purposely, for before the publication of E. S. Morse's *Japanese Homes and their Surroundings* in 1886 there was little or no opportunity to study Japanese architecture. Even Frank Lloyd Wright, whose mature style Japanese influence helped to crystallize around 1900, claims that his knowledge of Japan came largely from prints—and actor prints at that! A succession of Japanese buildings, by their nature readily reassembled abroad from the original elements, of which the Museum of Modern Art's house was the latest, have in the last hundred years made it possible for architects and laymen who have never visited Japan to appreciate the qualities, both functional and aesthetic, of the Japanese house. And from Godwin to Gropius (who visited Japan only last year), the impress of Japan has balanced, if it has not cancelled out, that of such fountainheads of Western tradition as Greece and Rome for generation after generation of advanced architects. The latest generation now in their twenties are apparently proving no exception, and they will have the advantage of a visual documentation richer than was ever available before.

Only with these present publications, perhaps, has Japanese architecture been satisfactorily presented to English and American readers. Yet, as often, adequate presentation has come only after most that can be absorbed has already passed into the bloodstream of modern architecture in the Western World. So multifarious and long continued has been the pattern of Japanese influence on the West that it is hard at this late date to say how many of the similarities between our present modern traditions, established gradually over the last 60 or more years, and Japanese traditions are due to borrowing and how many to parallel development. Modular organization, visible framed structure, open planning with movable partitions, built-in furniture, interaction of house and garden, plain walls, frank exploitation of natural materials, particularly wood, horizontality, wide eaves, and various sorts of screens for sun control are only some of the elements common to modern architecture and traditional Japanese house architecture.

There are also deeper affinities of principle and approach. But it is a healthy feature of all these books that they stress the idiosyncrasy of the Japanese approach and its derivation from climatic and spiritual peculiarities very different from those of the modern Western World. Here the contrast between their traditional architecture and what the Japanese are now building in emulation of the modern architecture of the West (as most fully illustrated in the Koike book) brings one up short. It would seem on the whole that the Japanese were profiting less today than the West from their own traditions. If a Kosaka in his Postal Life Insurance Office at Sendai, which is of traditional wooden frame construction, seems able to make the best of both worlds, that is hardly so evident in his Nurses' Training School in Tokyo. The long-established Yamada's hand-

some Y-shaped Welfare Pension Hospital in Tokyo might have been built anywhere in the Western World; and Yoshimura's excellent Aritomi house in Tokyo seems to have borrowed back from California much of what the Californians began to learn from the Orient fifty years ago. Only Sakakura's Museum of Modern Art at Kamakura seems to parallel in its elegant combination of international ideals and regional details the subtlety of his master Le Corbusier's absorption of certain Indian ideas in his High Courts at Chandigarh. Gropius' pupil Yamaguchi in his Lecture Hall at Kanto-Gakuin University in Yokohama seems far less responsive than his master to local ideals and traditions, excellent and even original as is this building of his.

Paradoxically, one may therefore suggest that in the present state of things such books as Yoshida's and Drexler's might be of more value to Japanese architects than to those of the West. The Japanese seem to need now just the sort of reintroduction to the values of their own tradition, as seen from within the broad frame of reference of Western modern architecture, that Drexler in particular gives. But both books should be of great interest to Westerners all the same. It is fascinating to see the source—or the parallel—to so many of our contemporary ideas and to consider whether, in the translation of these ideas to the needs of the Western World, as much has been gained as has very evidently been lost. Does the individual genius of Frank Lloyd Wright make up for the quiet assurance of a tradition which, according to Koike, was never known as 'architecture' but only as 'house-building' (*Zoka*) until the impingement of the Western World on Japan eventually brought in the more pretentious term *Kenchiku*? Can we, with our declining standards of traditional craftsmanship and our dwindling use of natural materials, expect to rival in rich simplicity the effects of the Japanese carpenters whose discipline is that of cabinetmakers?

However that may be, the real value and stimulus of these books by Yoshida and by Drexler, as of any that present effectively distant arts of building—whether distant in time or in space—lies in their intimation of strange and potent beauties that must remain essentially inimitable. Here the Drexler book is the richer. Not only are his photographs of such buildings as both illustrate—the Ise Shrine, for example, with one view in Yoshida to ten in Drexler, the Katsura Palace, with nearly sixty illustrations in Yoshida, many of them of very minor details, to twenty in Drexler—generally finer (when they are not identical) but, since his subject is Japanese architecture and not just the Japanese house, Drexler includes buildings ranging from temples to castles which enormously extend one's picture of Japanese building materials and methods. Temples, with their pagodas and their very rich decorations, as also the stone bastions of the castles, are more related to Chinese architecture, less indigenous than the palaces and houses, but magnificent none the less. The range of garden design, from courtyards of smooth-swept white sand ornamented by a few groups of carefully chosen and artfully placed rocks, as at the Ryoanji Temple, to landscapes of almost eighteenth century English extension, such as the Pond Garden of the Shagakuin Imperial Villa, is also greater in Drexler than in Yoshida, and will be a revelation to many who believe they already know the Japanese garden.

Yoshida, however, gives rather more technical material in graphic form, not least a section with plans of sixteen houses, contemporary but of the traditional order. Yet Drexler's account of structural methods is perhaps subtler, since he is more fully aware of the problems raised by Western criticism concerning honesty of structural expression. It is interesting and healthy to learn that Japanese structural frankness is by no means as total as it appears to the casual eye or has been claimed to be by European purists. Curiously enough, Yoshida is more critical of the primitiveness of Japanese traditional concepts of structure. Drexler writes well; so may Yoshida have done in Japanese, but the double translation, from Japanese into German and from German into English, has naturally produced a characterless text of rather unpleasant texture.

To all those who find in the Japanese house, as in the Greek temple and the Gothic church, one of the absolutes of architectural achievement, these books will be rewarding both for the pure pleasures of contemplation they offer and for the extensive and revealing information they provide. After looking at them, alas, one's interest in the Koike selection of current production is likely to be rather faint. We will do well to remind ourselves, then, that to look at books of current production in Greece or even, say, in France after renewing one's impressions of fifth-century temples or twelfth-century cathedrals would likewise be disconcerting if not even more depressing. The curious difference is that the traditional Japanese house remains a living phenomenon, as the example in the garden of the Museum of Modern Art, the most popular architectural exhibit which that institution has ever shown, made evident to a wide American public. The inclusion of the plans, elevations, and sections of that house in the Supplement, as well as a suite of fine photographs of the building and its garden setting, so surprisingly seen not against Fujiyama but against McKim, Mead and White's University Club and Philip Johnson's Whitney Museum, is not the least interesting feature of the Drexler book. **Henry-Russell Hitchcock**

THE DEFINITIVE BELVEDERE

THE CORTILE DEL BELVEDERE. *By James S. Ackerman. Biblioteca Apostolica Vaticana,* 1954. 12,000 *lire.*

Between 1840 and 1920 there appeared a remarkable series of books on Roman architecture of the High Renaissance. These were the life-work of two generations of painstaking scholars. Subsequent students found their research both exhaustive and exhausting. For thirty-five years no one has dared or cared to undertake a major new investigation within that field. Now this handsome book has emerged from the cold ashes of Letarouilly's, von Geymueller's and Dagobert Frey's enthusiasm.

The author outlines the complicated early history of the Vatican with admirable clarity; he reconstructs Bramante's project for the new extension court by court, wall by wall and floor by floor; he chronicles in full detail the construction completed during each of the first nine pontificates of the sixteenth century and deals amply with the development of the building from 1585 to the present day. The body of the book concludes with a discussion of the sources of the design, an analysis of those qualities which gave it distinction and a suggestion of the influence it exerted. Finally, a series of appendices include a reprinting of all known descriptions, a publication of all documents so far identified and a detailed catalogue of all available graphic material up to 1585. Excellent in every part, as a whole the text of *The Cortile del Belvedere* has established a new and larger meaning for the hackneyed phrase 'definitive study.'

Mr. Ackerman has done more than provide historians of Renaissance architecture with a model monograph; he offers them a challenge. He discovered a mid-sixteenth century painting of the building in the guise of an ancient ruin. By a learned yet imaginative interpretation of this new evidence, he concludes that 'throughout the first half of the sixteenth century, Bramante's Cortile was seen as he meant it to be seen; a re-embodiment of the Roman villa or palace garden.' 'The plans were the result of considerable archaeological research.' The implications of this suggestion are extensive. Ackerman may well have found a rich new vein leading from the old mine.

The illustrations supplement the text adequately, but are otherwise a disappointment. Surely at this price one could expect something more than forty-seven postcard-size figures. The only reproductions of the existing building are four small photographs, tired examples of familiar views. The justification of this book is the fact that the Cortile del Belvedere 'exists today only in name; and if it is to be understood and appreciated it must be reconstructed.' But for a masterpiece of architecture to be satisfactorily reconstructed the final result must include some model, drawing or doctored photograph that establishes the definitive visual image for its time. All that is provided here are three large diagrams. As visualizations they are mere skeletons; as charts they are neither consistently clear nor wholly accurate.*

Fortunately this study is only a beginning. The author originally planned to publish a monograph on the history of the whole Vatican during the sixteenth century. It is gratifying to read that he has come 'enticingly close to that aim.' One can only hope that he now projects a companion volume. Highly desirable in itself, it would also provide an opportunity to make good the one major shortcoming of this otherwise admirable book. **John Coolidge**

* For example, on plate I the relation of the loggie of the upper court to the top floor of the intermediate court is puzzling. On plate II the cornice of the court wall is broken while the entablature of the niche is continuous. On plate III it is hard to identify the work completed under Leo X and impossible to date the roofs.

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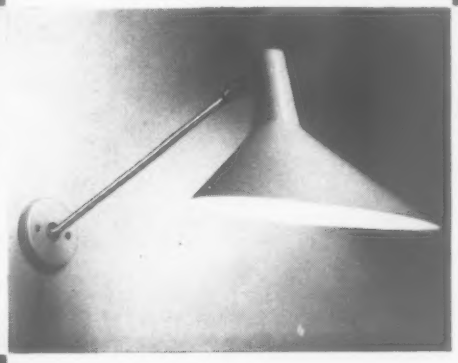

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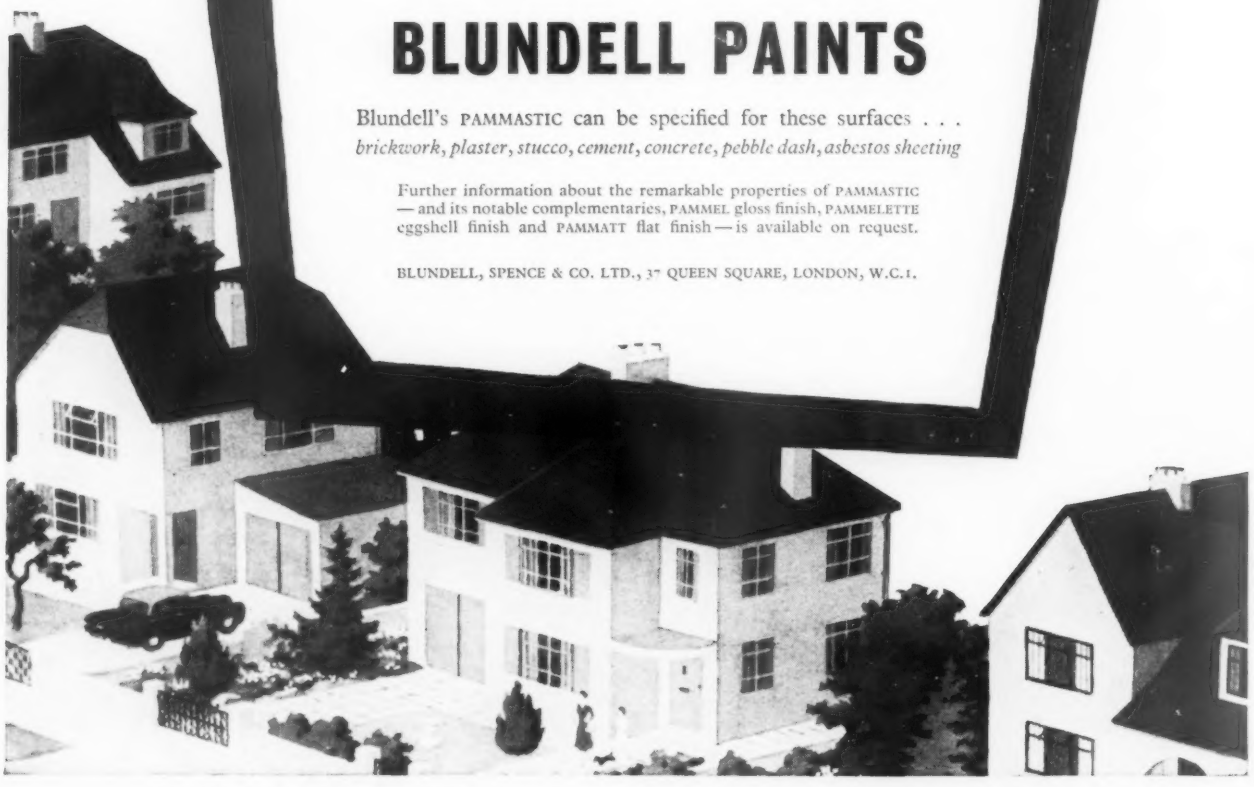


SKILL

A MONTHLY REVIEW
OF BUILDING TECHNIQUES & INDUSTRIAL DESIGN

1 interiors
2 design review
3 techniques
4 the industry

DESIGN REVIEW

HOUSEHOLD STORAGE

A new approach to built-in furniture is suggested in the following survey of current British domestic storage equipment. The survey excludes kitchen storage, which will be dealt with in a separate article.

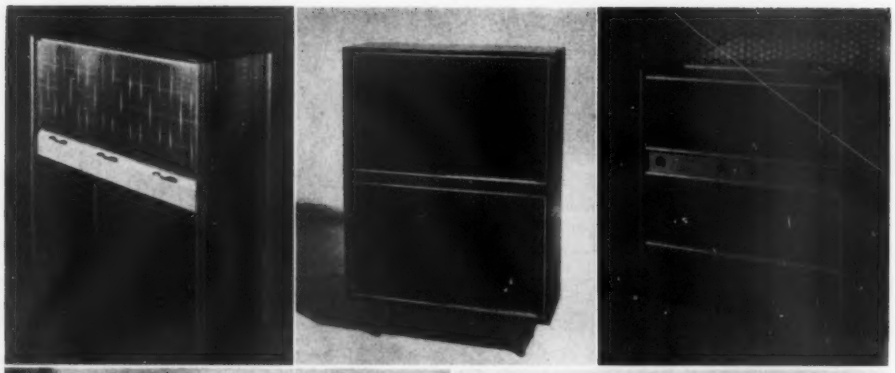
Today's smaller houses and higher standard of living (hence more personal possessions) means that serious thought is needed on the design of household storage equipment. Post-war solutions have been mainly in two directions: firstly, the adaptation to a modern idiom of traditional types of storage (wardrobes, chests-of-drawers, sideboards) and, secondly, the creation of new equipment designed to serve specific contemporary needs (stacking units, open-frame constructions).

In the first category, designers' efforts have recently been concentrated on building in refinements to an essentially static idea. Considerable attention has been paid to the selection of woods, to detailing of carcass structures, and, recently, to the use of techniques for applied decoration. The form and purpose of this type of storage have remained unchanged, and designers play with styles rather than produce original creative solutions.

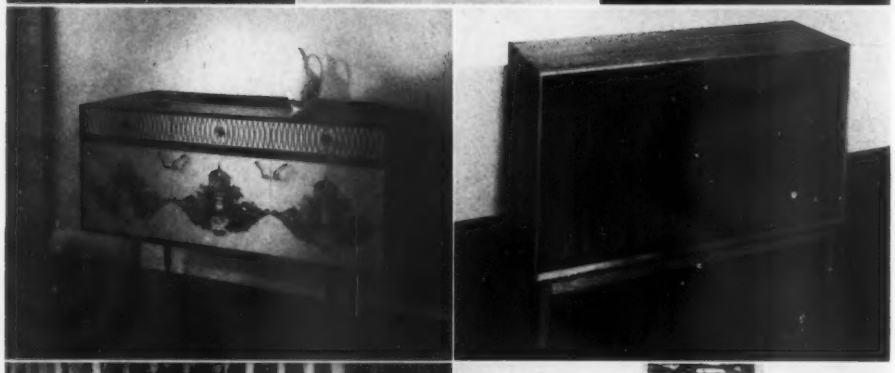
By contrast the second category recognizes present-day living conditions; the unit idea was originally developed to help the increasing numbers of young couples unable to start married life with completely furnished homes. But it has remained very largely an idea, and in its true sense has been confined mainly to bookcases. Consistency of dimensions and style throughout a range is a welcome step forward, but it is *not* unit furniture—and at the high prices usually demanded is not fulfilling its original purpose. *Stacking* and *extendable* units have only recently been developed for multi-purpose storage.

Other factors have influenced recent designs. The use of vacuum cleaners, more efficient types of solid-fuel-burning fires, and, to some extent, central heating have

1, *Kandya Ltd., designed by Frank Guille.* 59 *in. by* 58½ *in. by* 16 *in. deep.* £37 10*s.*



2, 3, 4



5, 6

7, 8

2, *Heal & Son Ltd., designed by H. E. Long. Height: 4 ft.; depth: 1 ft. 6 in.; width: 4 ft. 4 in.* £43 10*s.* (*All prices are approximate and include purchase tax*). 3, *D. Meredew Ltd., designed by Meredew Design Group. Height: 4 ft. 3 in.; depth: 1 ft.; length: 3 ft.* £22 18*s.* 6*d.* 4, *Kandya Ltd., designed by F. Guille. Height: 4 ft. 3 in.; depth: 1 ft. 6 in.; width: 4 ft.* £29. 5, *G. W. Evans Ltd., designed by Robert Heritage. Silk screen: Dorothy Heritage. Height: 2 ft. 10½ in.; depth: 17 in.; length: 4 ft. 6 in.;* £60 1*s.* 3*d.* 6, *Gordon Russell Ltd., designed by W. H. Russell. Height: 3 ft.; depth: 1 ft. 7 in.; length: 4 ft.* £30 16*s.* 7, *W. G. Evans & Sons Ltd., designed by Peter Hayward. Height: 33 in.; depth: 18 in.; length: 54 in.* £40. 8, *A. Younger Ltd., designed by John J. Herbert. Height: 2 ft. 11 in.; depth: 1 ft. 7 in.; width: 4 ft. 5 in.* £35 15*s.*

had a marked effect on cleanliness in the home. Dust from brushed carpets and smoking fires no longer dictates the necessity for closed storage, and the open-frame unit has become a practical possibility. Most designs of this type are, however, expensive when their basic simplicity of construction suggests cheapness. Serious production for mass markets has yet to be tackled and often the most successful examples are 'purpose made.'

The illustrations show some of the better achievements by British designers; they still remain piecemeal solutions of storage problems. To what extent do they relate to the design of new housing, or, for that matter, to the real needs of the occupants? Storage, if it is successfully to fit in to the pattern of living, must be directly related to the plan of the house. Yet today the architect and the furniture manufacturer produce their own solutions which will eventually come together in the furnished home. If the combined result is satisfactory, it is certainly not by design.

There is sufficient standardization of housing units for large scale development schemes to justify a closer relationship between furniture manufacturers and the building industry—already explored to a limited extent in the production of kitchen storage. The cost of joinery excludes the extensive introduction of built-in storage for general household use and does not provide the quality of finish or intricacy of fittings normally demanded in the living room. Factory-made units delivered to the site ready to be installed in large sections, would fulfil these requirements and in addition provide major economies by allowing the building itself to replace various elements of the carcass. By including the price as part of the mortgage repayments, the householder could derive the benefits of economic purchase which was initially the underlying principle of the unit system.

Living and Dining Room Storage

Sideboards. Apart from the mirrored back, which has almost entirely disappeared, the sideboard has retained traditional form, but it is doubtful if its traditional use as a side carving table is very common.

By accepting this doubtful basis as a starting point for design, most sideboards are too low to provide convenient access to the storage compartments. At the same time, the arrangement of drawers and cupboards seems usually to be the wrong way round. Drawers, which have access from above, are placed at the top, and cupboards, which have access from the front, are so low as to enforce stooping to find anything placed at their backs. In the sideboard from Heals, **2**, this arrangement, sensibly, has been reversed and the whole unit lifted to a more comfortable height.

Careful detailing is common to all the sideboards illustrated here and such exaggerated characteristics of the early contemporary style as widely splayed legs and Spartan finishes have been avoided. The use of contrasting surfaces in **5** and **6** emphasizes the structure and suggests lightness. The desire to create more visual

9, 10

9, *Phœnix Gallery. Standard sections: height:* 11 *in.; depth:* 8 *in.; length:* 42½ *in.* (4 *units*). *Large sections: height:* 15 *in.; depth:* 11 *in. length:* 42½ *in.* (4 *units*). 10, *Minty Ltd. Height:* 5 *ft.; depth:* 11½ *in.; width:* 2 *ft.* 3 *in. Oak:* £20 16*s.* 6*d.; walnut:* £19 7*s.* 6*d.*

terest is being increasingly expressed in ecorative treatments. Three different chniques have been used in these amples: **2** and **6** show contrasting possilities in routed decoration, **7** uses a aditional inlay technique, while **5** introces a new element in silk-screen printing. y comparison, **8** seems austere, although s proportions and finish make it a easant and unobtrusive piece.

The sideboard proper has more limitations in a combined dining-sitting room; it is then used for more general storage and a few larger cabinets have been made to fill this need. Where space prohibits longitudinal expansion, building upwards is a natural alternative. An effective solution to this problem can be seen in **3**, which makes use of P.V.C. sheeting on the door fronts to contrast with the slim wood carcass. The similar function of **4** is expressed in a different style, suggesting a link with peasant craftsmanship.

Multiple Storage. The unit idea in furniture is of pre-war origin, but its subsequent development has not been as great as the frequent use of the term might indicate. Early experiments were confined mainly to bookcases and **9** shows typical examples of the versatility which this type of unit provides. The single-purpose type of bookcase, **10**, gives less scope for the varied demands of modern informal living—demands which are better served by the more recent cupboard and shelf units combined in arrangements which can spread across an entire wall or form an open screen to divide a room. The ladder principle, **14**, is one of the simplest solutions, although the height is fixed and variations are limited to sideways extension and to the disposition of cabinets and shelves. More flexible is the 'Vanson' unit, **11**, which can be varied in both length and height; in addition, the partial recession of the supporting members allows a flush joint between the cabinets which results in a more compact and unified appearance.

The chief drawback of all these types of unit construction, however, has been the failure to disguise the appearance of accumulated single items. An answer to this problem has been found in the 'Extend' range recently introduced by Meredew's, **15**. Although detailing and finish could undoubtedly be improved, the principle of interlocking sections which can be built up in an infinite number of combinations is good and deserves further exploration.

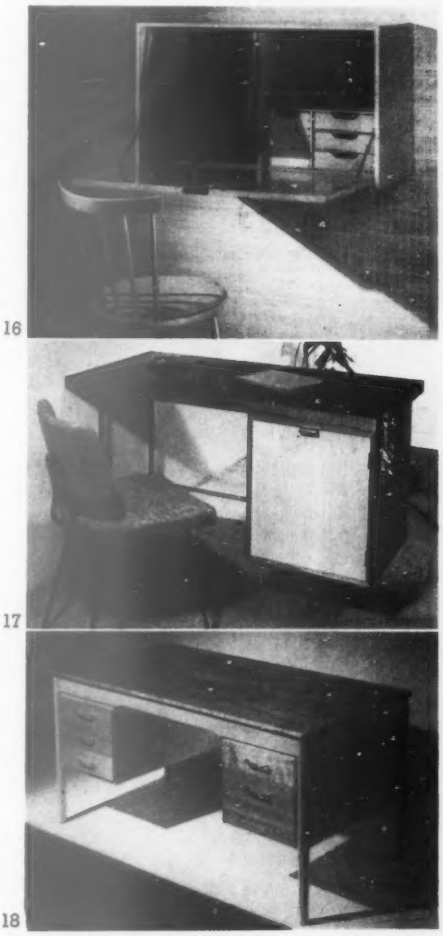
The backs of all the storage fitments discussed so far have a blank side, and this presents obvious difficulties when they are used as room dividers. The need for double-sided furniture has long been felt, and **12** and **1** show two recent designs which have tackled the problem sensibly. In **13** particularly the proportions are elegant and gain in effect from the contrasting painted and natural wood surfaces. There is still a long way to go before the full double-sided unit, such as **16**, which extends from floor to ceiling and divides the kitchen from the living-room in the French show flat exhibited at Hälsingborg, becomes a practical commercial proposition in England.

11
12
13
14
15

11, *W. G. Evans & Sons Ltd., designed by Peter Hayward. Length: 27 in.; depth, small carcass: 13½ in.; large carcass: 18 in.; width, small carcass: 11½ in.; large carcass: 16 in.* £145. 12, *A. Younger Ltd., designed by John J. Herbert. Height: 5 ft. 5in.; depth: 1 ft. 10 in.; width: 5 ft. 2 in.* £95. 13, *double-sided unit dividing kitchen from living room in the French show flat at Hälsingborg,* 1955. 14, *Heal & Son Ltd., designed by Nigel Walters. Height: 5 ft. 11½ in.; width: 9 ft. 2¾ in.; ladder:* £7 5s.; *shelves:* £4 *to* £8 10s.; *cocktail cabinet:* £82 10s.; *sideboard:* £82 10s.; *wireless cabinet:* £81 10s.; *display cabinet:* £60. 15, *D. Meredew Ltd.* £114 10s. 9d. (*whole unit as photographed*).

Specialized Storage The study as a separate room is seldom practical today, and few homes have space for a desk as such; but a simple unit within the framework of other storage, as in **14** and **11**, has positive advantages. Where this is not possible, for example in a bedroom, a compact wall-mounted structure such as **16**, from Denmark, would find many uses. Several available office desks would fit well into a modern domestic interior. The Hilleplan desk, **17**, has the smart workmanlike lines which characterize Robin Day's style, while L.M. Furniture's model, **18**, has the more gentle appeal of wood used in the manner of Danish craftsmanship.

Bedroom Storage. Here, satisfactory storage arrangements are of even greater importance than in living and dining rooms. Built-in cupboards are common in new



16
17
18

16, *Designed by Paul M. Volther for the Danish Co-operative.* 17, *S. Hille & Co. Ltd., designed by Robin Day. Height: 28½ in.; length: 4 ft.; width: 1 ft.; cabinet: 1 ft. 6 in. wide and 1 ft. 6 in. deep.* £24 14s. 9d. 18, *L. M. Furniture Ltd., designed by Tom Lupton and John Morton. Height: 2 ft. 5 in.; depth: 2 ft. 6 in.; length: 5 ft.* £16 10s. (*table only*). £42 10s. (*with 2 units*).

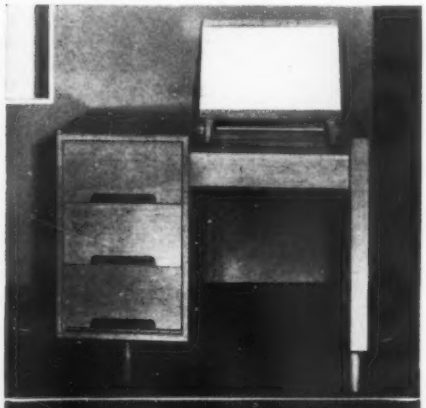
19, 20

21, 22

19, *the Stag Cabinet Co., designed by John and Sylvia Reid. Height:* 6 *ft.; depth:* 1 *ft.* 10 *in.; width:* 4 *ft.* 6 *in.* £35 15*s.* 20, *Nicholls & Janes Ltd., designed by Robert Heritage. Height:* 6 *ft.* 3 *in.; depth:* 1 *ft.* 10 *in.; width:* 4 *ft. Set of wardrobe, robette and dressing-table* £142. 21, *Loughborough Cabinet Manufacturing Co., designed by Ward & Austin. Height:* 5 *ft.* 9¾ *in.; width:* 4 *ft.* 2 *in.; depth:* 1 *ft.* 8 *in. Mahogany:* £44 18*s.; walnut:* £50 3*s.* 22, *Loughborough Cabinet Manufacturing Co., designed by Ward & Austin. Height:* 3 *ft.* 2 *in.; width:* 2 *ft.* 10¾ *in.; depth:* 20 *in. Mahogany:* £16 14*s.* 6*d.; walnut:* £18 4*s.*

houses and flats and usually provide adequate hanging space, although they lack the refinements of fitted trays, mirrors, etc. In the smaller bedroom, however, the unobtrusive character of this type of storage, with its painted surfaces closely matching walls, is an advantage, and visual interest can be concentrated on other elements—a bedspread or dressing-table.

In larger rooms, the unobtrusive built-in



23

24

23, *the Stag Cabinet Co. Ltd., designed by John and Sylvia Reid. Height:* 2 *ft.* 5 *in.; depth:* 1 *ft.* 6 *in.; width:* 2 *ft.* 11 *in.* £15. 24, *H. Morris & Co., designed by Neil B. Morris. Height:* 1 *ft.* 4½ *in.; width:* 1 *ft.* 8 *in.; length:* 6 *ft.* 4 *in.* £57 10*s.*

cupboard is not the best solution. What is needed is a series of factory-made units complete with internal fittings and providing the surface qualities and refined detailing of the best wardrobes in current production. The failure to provide any built-in storage in the majority of inter-war housing, however, makes the conventional wardrobe a necessity in many homes.

One of the designer's chief problems is to reduce the apparent bulk of the wardrobe and in the 'Stag' model, **19**, this has been cleverly achieved by the full-length mirror which appears to divide the wardrobe into two. The 'Stanhope' design, **20**, has a similar lightness of touch where the emphasis is on the thin supporting framework; also in the wardrobe, **21**, where the ebonized strip gives the same result. Each of these three designs is part of a matching set and the high standards which they attain are carried through in the other pieces, as can be seen in the dressing-tables, **22** and **23**. Both these designs make use of a lift-up lid with a mirror on its under surface, closing to form a flush table or writing-desk. A more ambitious and expensive conception, **24**, has tackled the problem of the often ugly, fixed dressing-table mirror, which shows its plywood back from so many bedroom windows. The twin circles, here, are charming and original and show a sensitivity to scale and the qualities of materials which mark the skilled designer.

GRATINGS AND COVERS

by Hugh Wykeham

The architect whose attention has been directed to floorscape will often find that his best intentions for detailing at that level are frustrated by the difficulties of acquiring a body of comparative knowledge of the visual effect of manhole-covers, gratings and so forth when actually installed and in use.

The ranges of the different manufacturers would tax even the most capacious visual memory, but, in any case, the difference between the appearance of an illustration of a product in a trade-catalogue and the appearance of the product itself in a kerb or pavement is almost absolute.

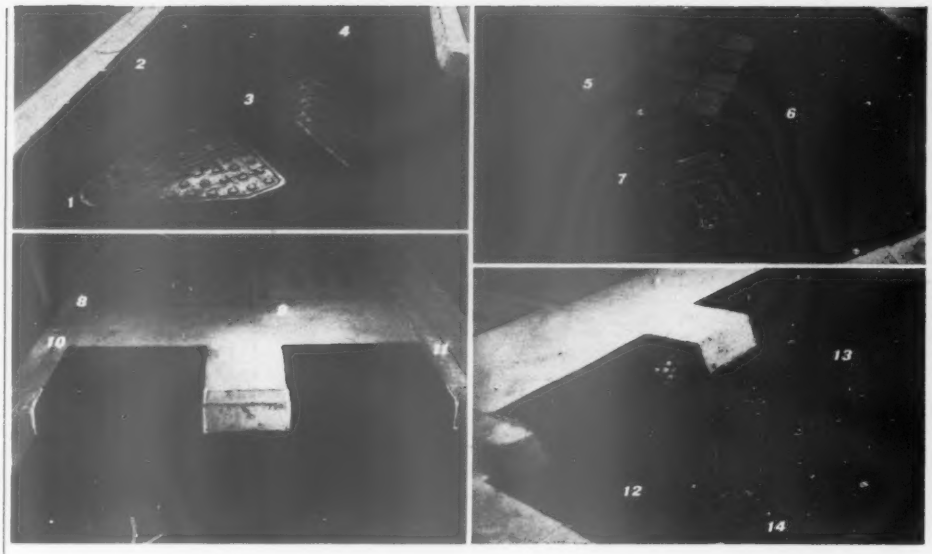
For these reasons one cannot but be grateful that Broads Manufacturing Company showed a fair sampling of their wide range of covers and gratings at the recent Public Works Exhibition at Olympia, actually set in kerbs and road surfaces, thus making useful comparisons possible, even though the 'show finish' of most of them bears little resemblance to the sheen they acquire from daily traffic wear.

Even within this one manufacturer's range, the variety of possible alternative patterns—often with performances that overlapped sufficiently to provide genuine choices—is remarkable. Among gully-grates, for instance, the alternatives shown included the classic straight-barred model, **6**, the *Guardian* diagonal model, **4**, and the *Trirec*, which offers a new shape on the ground. Those almost-sculptural storm-grates, with their curved and bevelled bars, were not shown (though included in the range) but there were a number of kerb-fitted gully covers with flood deflectors, such as the *Highway*, **10** (and a variant without a deflector, **11**), the *Fullway*, **13**, which has a true grating rather than a deflector, and the Neath By-pass model, **12**, a 'special' that preserves the contour of a

[continued on page 141.

'battered' kerb by virtue of a cover with a turned-down skirt.

Inspection covers—a term that embraces more than just manhole lids—ranged from light-duty *Broadstel* covers, **8** and **9**, familiar in urban pavements, to a variety of heavy-duty equipment, including recessed models to be filled with road surfacing materials—though **5**, whose fill contrasts with the surrounding surface, represents a situation that would not normally arise in practice. Regular metal covers (besides traditional circular and rectangular models, e.g. **13**) included two particularly interesting non-rocking types with three-point suspension. Not only do these eliminate the nerve destroying clatter caused by loose lids in busy roads, but the three-point suspension reveals itself at the road surface in two forms that are still unfamiliar to the floorscaper—the three-lobed *Ner-Rok*, **2** and **14**, or the approximately triangular, **1**. The performances of these last two models overlap considerably, in terms of loading and access



dimensions, and should provide the kind of choice that ought to allow the architect and his engineer to agree upon covers that are visually as well as technically appropriate to the design in hand. Cost margins, of course, may impinge on aesthetic ones, but may be affected in turn by the quantities involved, a point that would have to be taken up with the manufacturers themselves.

Broads Manufacturing Co. Ltd., 4, South Wharf, London, W.2.

21, 22

TECHNIQUES

EXTERNAL PAVINGS 1

by Robert Maguire

The conscious use of paving materials to give character to paths and pedestrian areas has now at last re-established itself. In its articles on Townscape the ARCHITECTURAL REVIEW *has sought to stimulate interest in this matter, and from time to time has published examples from the functional tradition found in our towns and villages, and suggestions on the way in which this lively tradition may be continued in the future. Those architects and planners who have considered pavings important and have attempted something beyond the bare minimum have, however, come across one major difficulty—cost. Pavings and other similar external works are still thought to be dispensable luxuries by the average client (particularly by the average committee-client), and unless their cost can be brought down to a reasonable level they are often likely to be omitted altogether. This is the first of two articles in which Robert Maguire reviews the range of paving materials now available, and gives some indication of their cost, based on today's prices.*

A few years ago only two kinds of paving were available—the 'sympathetic' traditional materials, such as stone flags and paving bricks, which were and still are expensive, and comparatively drab materials such as concrete flags and asphalt, which were cheap. This was probably the result of the general attitude before the war, when architects were commonly supposed to require only 'high class' pavings while economy was considered the concern of those who had merely a job of work to do.

Since then some considerable effort has been made to develop new methods of paving cheaply, and the results so far have been notable for their revival of a good straightforward character; prettiness seems at last to be on its way out. In particular the work of the Cement and Concrete Association and a number of member firms has done much to relieve the prejudice against concrete as a paving material; and it has been shown to be not only one of the cheapest, but also a material offering many variations in character.

In these articles both traditional and newly developed materials will be considered, in order to give as full a picture as possible and to allow comparison. They will be dealt with under the following headings:—

Flags. Flat units of any size over about 1 ft. 6 in. square.

Tiles. Flat units under 1 ft. 6 in. square.

Blocks. Fairly thick units of small surface area.

In situ. Materials laid 'wet' in slab or membrane form.

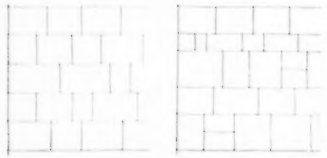
Loose. Small-sized material spread over the ground and sometimes rolled in.

Flags

Stone. There is quite a large range of stones hard enough to be used for paving, but most of them are now quarried in such small quantities as to be impracticable for any but local use. This is fortunate, for with the increasing industrialization of the building industry tending to iron out regional character, it is as well that one or two such circumstances still provide some relief.

The two stones generally available for paving are York, a sandstone, and Portland, an oolite limestone. The latter is normally rather soft and should not be used in places where excessive wear is expected. Purbeck Portland, which comes from an adjacent bed, is harder but more expensive. The colours of these stones are well enough known to need no description. The cheapest surface finish for York stone is riven, 1, i.e., split along the natural cleavage plane, producing a pleasant rough texture; Portland stone is sawn and may be used with the saw-marks left on. The thickness will vary according to the size of individual flags between 2 in. and 2½ in. Economical sizes depend entirely on what can be cut out of the available blocks of stone at the quarry, and this generally means random sizes. An average width for both types of stone is 2 ft. 6 in., and

1. *York stone paving with a natural riven surface at King's College, Cambridge. A wide edging of cobbles has been used to provide a hazard to the grass. (Architects: Holford and Wright.)*



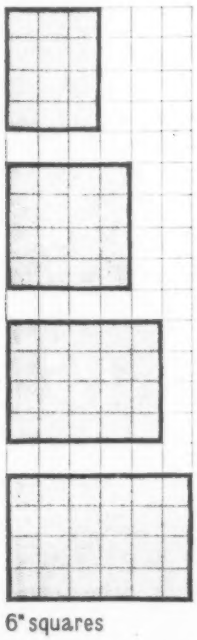
2, *a method of setting out stone paving which allows economical sizes of flags to be cut. The 'courses' are of equal width (2 ft. 6 in.) but the flags vary at random in length.* 3, *another layout which allows for a larger range of sizes.*

in laying out paving it is a good idea to specify 'courses' of this dimension in one direction and allow the lengths of flags to vary, 2. Alternatively, greater freedom can be allowed by specifying two or three possible course widths, 3.

BSCP 202.102 recommends that all stone paving should be bedded solid in mortar, the kind of mortar being chosen to suit the stone. Traditionally, however, flags are laid on 'five dots' of mortar at the corners and centre of each flag. This facilitates lifting, which, unfortunately, is still necessary for access to services. The foundation can be of hardcore or merely well-rammed earth, with a covering of ashes or small clinker; sand, although frequently used, is to be discouraged unless the joints are well pointed up, as the seepage of surface water tends to move it. Clinker should not be used under limestones because it can cause efflorescence on the surface.

Slate. Slate flags for external paving are now unfortunately priced almost out of existence. The cheapest types are Delabole and Lancashire slates in sawn slabs (left rough), and with an average width of 2 ft. They may be considerably thinner than flags of other stones; 1 in. to 1¼ in. is reasonable.

Cast stone. The makers of cast stone can 'reconstruct' any suitable natural stone in the form of flags. Apart from the colour and texture, cast stone flags can be regarded as similar to those made in precast concrete, and should be subject to the same strength requirements. They may be made to any practicable size, and if ordered specially, the number of different sizes should be small in order to make production economical.



4, *British Standard sizes for precast concrete flags. The usual thickness is 2 in., but B.S. 368 also allows for the manufacture of 2½ in. flags.*

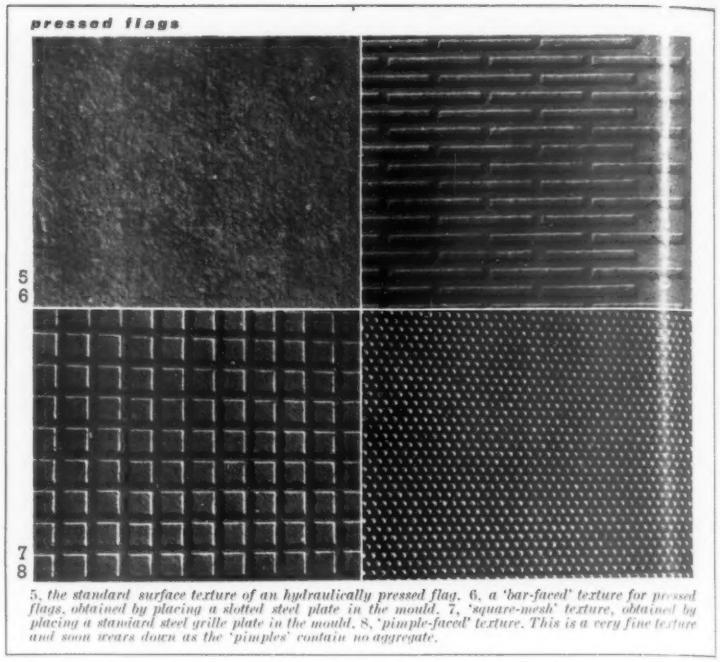
Precast concrete. There are two distinct types of concrete flag-stone; the one mass-produced by hydraulic pressure, and the other cast in open moulds without pressure. Hydraulically pressed flags are often referred to as Standard Flags, being produced to the full requirements of B.S. 368, which lays down a minimum strength and also governs sizes, 4. The B.S., however, allows for the production of flags with or without pressure, but states that if pressure is used it must not be less than 1,000 lb. per sq. in. A hydraulic press, which is the only practicable piece of equipment capable of this pressure, can produce thousands of flags a week, so that it is difficult for the open-mould method to compete in the same market. The makers of open-mould flags, therefore, tend to by-pass the B.S. and produce higher-priced flags to meet more special requirements.

Pressed flags. The hydraulic press consists of a number of mould trays on a turntable, which are brought in turn under first the feed hopper and then the press itself. The bottom of each mould is covered with a fine wire mesh on top of which is placed a sheet of paper; the hopper then feeds in the exact amount of concrete mix, which is very dry. Under the press, the water is forced out through the paper and mesh. The paper prevents the fines of the concrete being forced out along with the water. Immediately after pressing the flag is set sufficiently to allow lifting and stacking.

From this description it must be obvious that the pressing process has limitations. The first and most important is that associated with all mass-production machinery—once set up for a job, it is most uneconomical to make any alterations. The architect is not, therefore, usually in a position to ask for anything but the manufacturer's standard lines, however small the alteration.

The second limitation concerns the surface texture of the flags. The standard texture is that of the wire mesh, 5, which is fairly pronounced even though imprinted through the paper. It provides a reasonable non-skid surface which is not very attractive, but wears off after about two years, giving way to the texture of the aggregate. It is possible to obtain different textures, 6, 7, 8, by placing perforated steel plates in the bottom of the moulds, but unless these are included in the maker's standard range it will be difficult to persuade him to do it for small quantities. Textured rubber mats cannot be used, as there is no escape for the water.

Most manufacturers concentrate on the production of 'natural' (grey) flags. These are made with unpigmented cement and usually the local aggregate. Consequently the products of different manufacturers vary considerably; there are green-greys, pink-greys, off-whites, and so on, according to the aggregate used. The accidental juxtaposition of these greys in, for example, London pavements, sometimes produces a very pleasant effect and leads one to consider how it could be used intentionally. There is, however, no way of telling the exact colours other than by collecting samples. This can also be deceptive, as new flags have a surface colouring of cement dust, which wears off later. One manufacturer has attempted to avoid this and to 'pre-weather' the flags by saturating the mould paper in a retarding liquid which affects the set of the surface cement only: after removal from the mould, the surface is washed down and brushed to expose the aggregate.



5, *the standard surface texture of an hydraulically pressed flag.* 6, *a 'bar-faced' texture for pressed flags, obtained by placing a slotted steel plate in the mould.* 7, *'square-mesh' texture, obtained by placing a standard steel grille plate in the mould.* 8, *'pimple-faced' texture. This is a very fine texture and soon wears down as the 'pimples' contain no aggregate.*

Flags can be made to other colours than grey by using a pigment in the cement. Most makers stock 'red' (pink) and 'buff' (ochre) flags as standard lines; other pigments tend to weaken the mix and make it difficult to guarantee B.S. strength. Generally speaking, manufacturers use too much pigment, producing unsubtle colours.

The 2-in. thick flags are quite suitable for general use, and it is difficult to see why 2½ in. flags are still produced; they are not sufficiently strong to take vehicular traffic, and excessively strong for pedestrian traffic. An explanation offered by one manufacturer is that they are useful for replacing parts of old stone paving, which is often 2½ in. thick.

The flags should be bedded on 'five dots' on a foundation of well-compacted ashes or clinker.

Open mould flags. The casting of flags in open moulds offers considerable scope both in surface texture and shape. There are two kinds of surface texture; mechanical texture and exposed aggregate.

Mechanical textures are obtained by means of a profiled bottom to the mould. Almost any textured material can be used, but the best results so far have been from rubber mould

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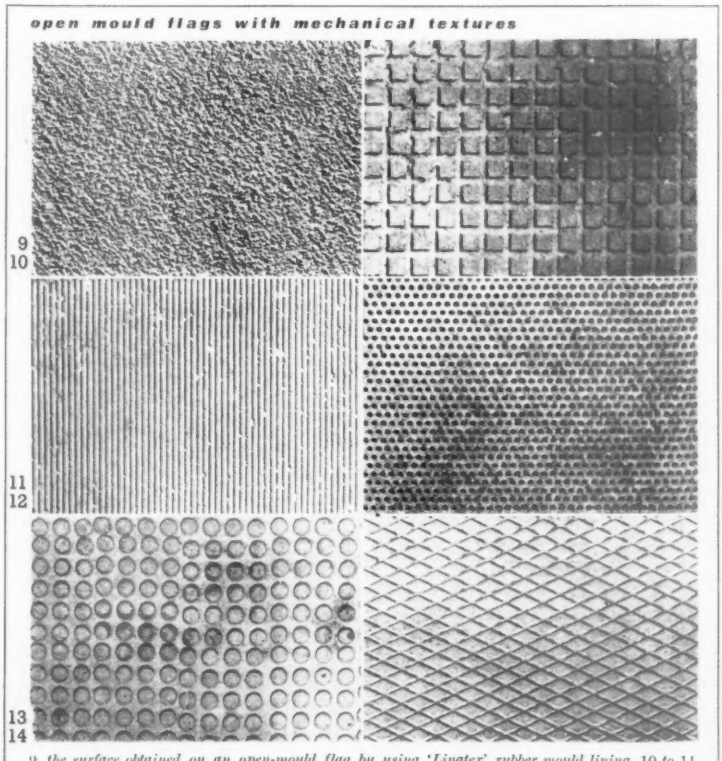
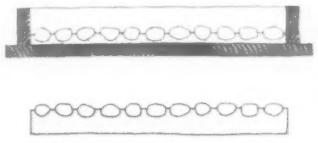


9, *the surface obtained on an open-mould flag by using 'Linatex' rubber mould lining.* 10 *to* 14, *textures obtained by using standard rubber sheetings:* 10, *from square studded rubber used for bus platforms;* 11, *from fluted rubber used for bath mats;* 12, *from batting-glove rubber;* 13, *from plain sheet from which washers have been punched;* 14, *from diamond studded rubber.*

continued from page 142]

linings. One rubber firm make a lining which has a rough-cast texture, 9, but otherwise standard patterns of rubber sheeting, 10 to 14, produced for other purposes (such as bus platforms and bath mats) must be used as special patterns cannot be made economically. Rubber has the disadvantage that it can be used only for about thirty or forty times, after which it disintegrates. The life of a lining can be helped if lanoline or castor oil is used in place of the normal mould oil. Experiments with polystyrene mould linings are at present being made, and these are said to have an indefinite life and can also be made fairly cheaply to special patterns.

The exposed aggregate technique was developed primarily for cladding panels, and its use for these is now well-known. Hundreds of colours and textures are possible, and may be inspected at the Cement and Concrete Association's research station. Only a restricted range is suitable for paving. Some aggregates are too polished and others so sharp-edged as to be dangerous, while the larger types give a very uneven surface. This last, however, may be useful for positions where the paving forms a 'hazard' rather than a walking surface, such as an edging to grassed areas.

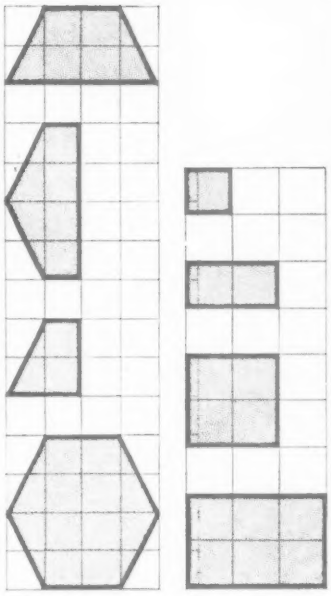


15, method of casting flags with large-sized aggregate surfacing, such as cobbles. The stones are laid in a bed of sand in the bottom of the mould; when the flag is removed from the mould the sand is brushed away, leaving the stones protruding.

The cheaper aggregates, 16, may be used throughout the mix, so that all that is necessary is to wash and brush off the surface fines. The more expensive aggregates, 17, are scattered over the surface a short while after casting, tamped in and the flag is washed and brushed as before. For larger aggregates, such as flint cobbles, the process is slightly different. A bed of sand, about half the thickness of the aggregate, is put in the bottom of the mould, and the stones placed in it, 15. The flag is cast on top and after removal from the mould, the sand is brushed away leaving the aggregate protruding halfway out of the flag, 18.

One manufacturer is now producing a very comprehensive system of precast concrete paving based on a hexagon grid, 19. Besides ordinary flags with smooth, textured or chequered surfaces, the system includes half and quarter flags, tree grilles, planting kerbs, gulley and manhole covers.

Another proprietary system, 20, is based on a 9-in. module. It is available in five colours.



19, left above, sizes of 'Mono-Hex' precast concrete flags. The half and quarter flags are used for filling up the odd spaces left by the hexagon grid at edges. 20, right above, sizes of 'Noelite' paving.

Tiles

Tiles are not normally associated with external paving, possibly because the scale of their pattern is rather small. On the other hand, the paving brick is one of the oldest forms and its pattern is also small in scale. In recent years the production of paving bricks has dropped, owing to the great demand for common building bricks, and quarry and other tiles have tended to replace them. The price of, for example, quarry tiles compares favourably with that of paving bricks of equivalent quality.

Quarry tiles. These are available in several sizes, the most useful from the point of view of external paving being 6 in., 8 in., 9 in. and 12 in. square. Thicknesses vary according to the size and use from ½ in. to 2 in. A 6-in. square by ½ in. tile would, of course, require laying on a carefully prepared concrete foundation, and this increases the cost. It may be found cheaper to use a larger, thicker tile laid in the manner of a flagstone.

Colours are usually limited to red, brown and buff, but quarries are now available with a number of interesting surface textures, 21.

Pammets. These are clay slabs of about the same quality as a good facing brick, 22; they are made in two sizes, 9 in. and 12 in. square, and are 2 in. thick. They can be laid in a similar way to paving bricks.

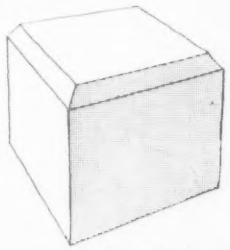
Terrazzo tiles. Terrazzo tiles are made 16 in. and 12 in. square, and 1 in. to 1½ in. thick. They are rather expensive and they also require a good foundation. A large range of colours is available.

Concrete tiles. These must be distinguished from concrete flags, for quite apart from their size they are made to a very different specification. They are not recommended for external use as they are liable to damage by frost.

Blocks

Under this heading are included setts and paving bricks, and it is regrettable that both these forms are tending to die out. They were, of course, used mainly to carry vehicular traffic, and for this purpose have been superseded by more modern techniques. For pedestrian uses they are rather uneconomical, having excessive thickness and requiring a great deal of labour in laying.

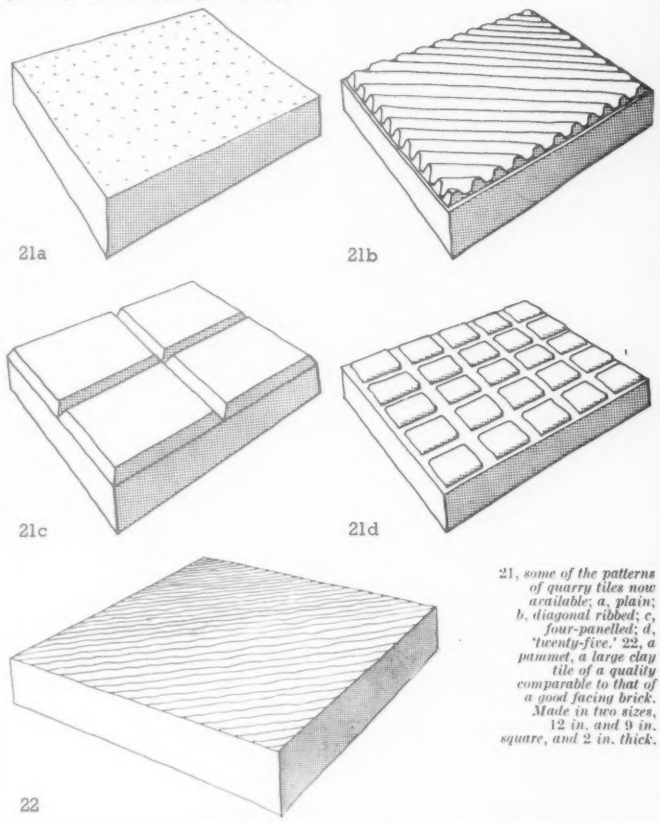
Setts. Concrete setts, 23, have been made experimentally by at least one firm, and may be worth while for such places as car-parking areas, where a different texture to the usual road-metal is required for demarcation reasons, 24.



23, a concrete sett. The sett is a 5-in. cube, with its top edges chamfered.

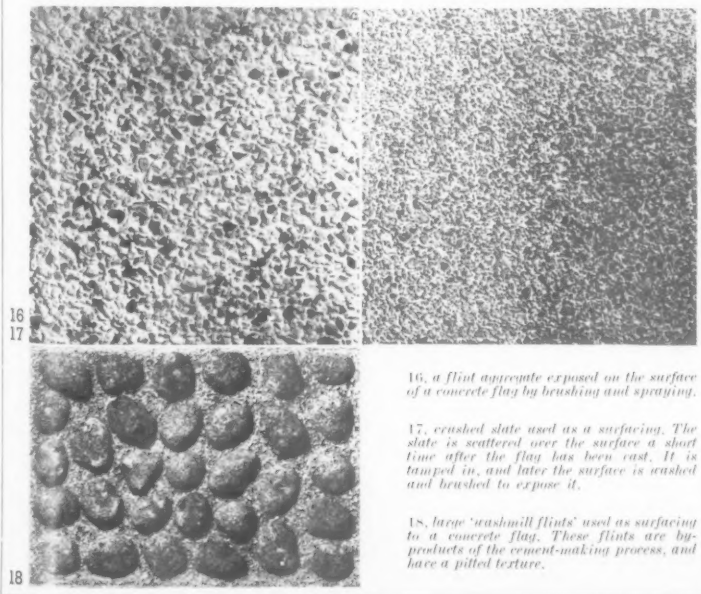
24, concrete setts laid with straight joints on a fore-court used for car-parking.

quarry tiles and pammets



21, some of the patterns of quarry tiles now available; a, plain; b, diagonal ribbed; c, four-panelled; d, 'twenty-five.' 22, a pammet, a large clay tile of a quality comparable to that of a good facing brick. Made in two sizes, 12 in. and 9 in. square, and 2 in. thick.

surfaces

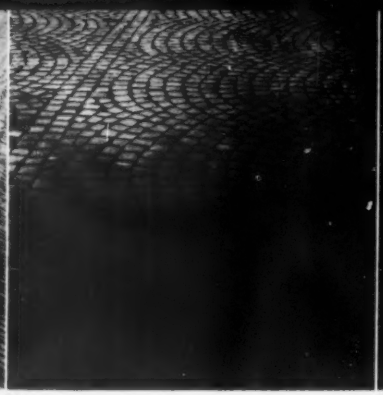


16, a flint aggregate exposed on the surface of a concrete flag by brushing and spraying.

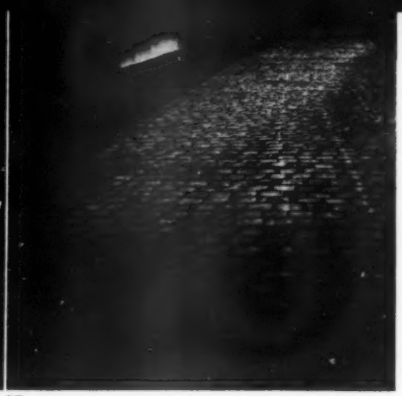
17, crushed slate used as a surfacing. The slate is scattered over the surface a short time after the flag has been cast. It is tamped in, and later the surface is washed and brushed to expose it.

18, large 'washmill flints' used as surfacing to a concrete flag. These flints are by-products of the cement-making process, and have a pitted texture.

25



26



27

material	finish: colour texture pattern	thickness	sizes	cost of raw material	pattern of laying	foundation type and bedding	total cost per yard super
York stone	riven	2 in.	2 ft. 6 in. wide × random lengths	70s. 0d. per yard super	2 ft. 6 in. courses	bedded solid on 4 in. concrete and hardcore	**95s. 0d.**
York stone	riven	2 in.	2 ft. 6 in. wide × random lengths	70s. 0d. per yard super	2 ft. 6 in. courses	five dots on consolidated ashes and hardcore	**87s. 6d.**
York stone	riven	2 in.	2 ft. 6 in., 2 ft., and 1 ft. 6 in. × random lengths	60s. 0d. per yard super	three course widths	five dots on consolidated ashes and hardcore	**75s. 6d.**
Portland stone	rough sawn	2 in.	2 ft. 6 in. wide × random lengths	100s. 0d. per yard super	2 ft. 6 in. courses	five dots on consolidated ashes and hardcore	**120s. 0d.**
Delabole slate	rough sawn	1¼ in.	2 ft. wide × random lengths	6s. 7d. per foot super	2 ft. courses	five dots on consolidated ashes and hardcore	**77s. 6d.**
cast stone	ex mould	2 in.	2 ft. × 3 ft.	15s. 0d. per yard super	rectangular grid	five dots on consolidated ashes and hardcore	**25s. 6d.**
precast concrete flags, hydraulically pressed	natural colour, standard non-slip	2 in.	BS sizes	10s. 3d. per yard super	2 ft. courses or rectangular grid	five dots on consolidated ashes and hardcore	**20s. 0d.**
precast concrete flags, hydraulically pressed	ochre pigment, standard non-slip	2 in.	BS sizes	12s. 9d. per yard super	2 ft. courses or rectangular grid	five dots on consolidated ashes and hardcore	**22s. 6d.**
precast concrete flags, hydraulically pressed	natural colour, bar or pimple pattern	2 in.	BS sizes	10s. 9d. per yard super	2 ft. courses or rectangular grid	five dots on consolidated ashes and hardcore	**20s. 6d.**
precast concrete flags, open-mould	texture of rubber mould lining	2½ in.	2 ft. 6 in. × 2 ft. 6 in.	31s. 6d. per yard super	square grid	five dots on consolidated ashes and hardcore	**44s. 0d.**
precast concrete flags, open mould	exposed aggregate (flint ballast)	2 in.	2 ft. 6 in. × 2 ft. 6 in.	36s. 0d. per yard super	square grid	five dots on consolidated ashes and hardcore	**49s. 0d.**
precast concrete flags, open mould	exposed aggregate (Mountsorrel granite)	2 in.	2 ft. 6 in. × 2 ft. 6 in.	40s. 6d. per yard super	square grid	five dots on consolidated ashes and hardcore	**53s. 6d.**
"Mono-Hex" precast concrete flags	smooth	2 in.	2 ft. 6 in. hexagon	20s. 6d. per yard super	hexagonal grid	five dots on consolidated ashes and hardcore	**32s. 0d.**
"Noelite" precast concrete flags	natural colour	2 in.	2 ft. 3 in. × 1 ft. 6 in.	12s. 0d. per yard super	rectangular grid	five dots on consolidated ashes and hardcore	**22s. 0d.**
quarry tiles	brown, four-panelled	1½ in.	6 in. × 6 in.	24s. 0d. per yard super	square grid	bedded solid on 4 in. concrete and hardcore	**47s. 0d.**
quarry tiles	brown, plain (third quality)	1½ in.	9 in. × 9 in.	12s. 0d. per yard super	square grid	bedded in mortar on consolidated ashes and hardcore	**29s. 6d.**
pammets	red	2 in.	12 in. × 12 in.	42s. 6d. per yard super	square grid	bedded in mortar on consolidated ashes and hardcore	**62s. 0d.**
terrazzo tiles	grey mixture	1½ in.	16 in. × 16 in.	41s. 0d. per yard super	square grid	bedded solid on 4 in. concrete and hardcore	**65s. 0d.**
granite setts, second hand	worn	4 in.	variable	50s. 0d. per ton	stretcher bond or square grid	on sand and hardcore; joints grouted up	**30s. 0d.**
paving bricks, pressed	red, eight-panelled	2 in.	9 in. × 4½ in.	12s. 6d. per yard super	laid flat in stretcher bond	on ashes and hardcore, dry joints	**26s. 0d.**
paving bricks, Staffordshire blues	blue, eight-panelled	2 in.	9 in. × 4½ in.	26s. 6d. per yard super	laid flat in stretcher bond	on ashes and hardcore, dry joints	**42s. 0d.**
paving bricks, Staffordshire blues	blue, eight-panelled	2 in.	9 in. × 4½ in.	26s. 6d. per yard super	laid flat in herringbone pattern	on ashes and hardcore, dry joints	**45s. 0d.**
hard stock bricks	plain	2⅝ in.	8½ in. × 4¼ in.	300s. 0d. per 1,000	laid flat in stretcher bond	on ashes and hardcore, dry joints	**25s. 3d.**
flint cobbles	smooth, round	approx. 3 in.	approx. 3 in.	—	random, set close	hand pressed into initial 2 in. thickness of concrete on 2 in. sand	**50s. 0d.**
broken flagstones, second hand	rough, but straight edges	varies	2 in. to 3 in. wide, random lengths	—	coursed	sand on hardcore, joints grouted up	**40s. 0d.**

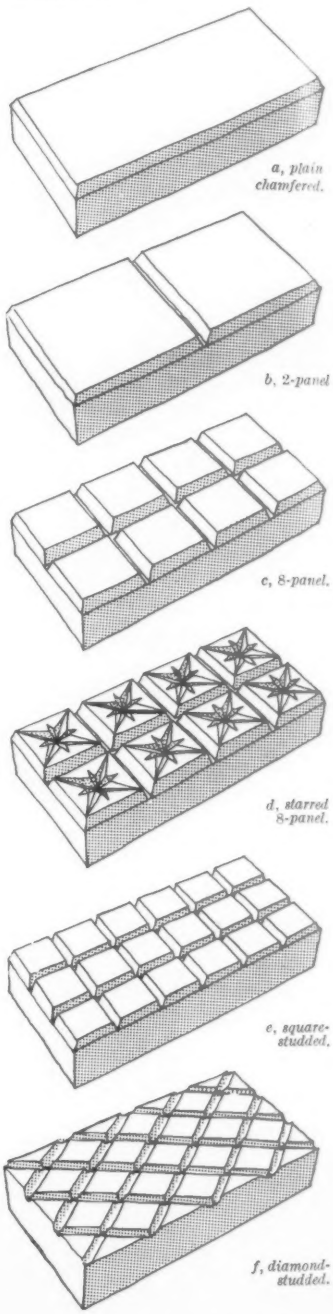
Table of comparative costs of various paving materials, methods and patterns of laying. The prices in this table are based on quantities of 100 *yards super or more, executed as part of a larger building contract in the London area. The prices given for the raw materials include haulage, which is sometimes considerable (as, for example, for blue Staffordshire bricks). Allowance should be made for this when considering conditions in other areas.*

25, rectangular granite setts laid in 'stretcher-bond' pattern. This is likely to be the cheapest method nowadays. 26, square setts laid fan-wise. 27, square setts laid in 'stretcher-bond' pattern.

The only granite setts now available are second-hand, and prices fluctuate according to supply. They vary a great deal in size, from a 4 in. cube to about 12 in. by 6 in. by 5 in. The traditional ways of laying are very attractive, 25, 26, 27, but likely to be very expensive; a brick-bond pattern is the most economical.

Paving bricks. Almost any hard, non-dusting brick can be used as a paving, but for places where heavy wear is expected, one of the bricks made specially for this purpose should be used. These are made of heavy plastic clay and pressed, and their colour is usually blue or red. They may be obtained in a number of mechanical surface textures, 28, which date from the nineteenth cen-

28 (below), a selection of paving bricks with mechanical textures;



a, plain chamfered.

b, 2-panel

c, 8-panel.

d, starred 8-panel.

e, square-studded.

f, diamond-studded.

[Series continued on page 146

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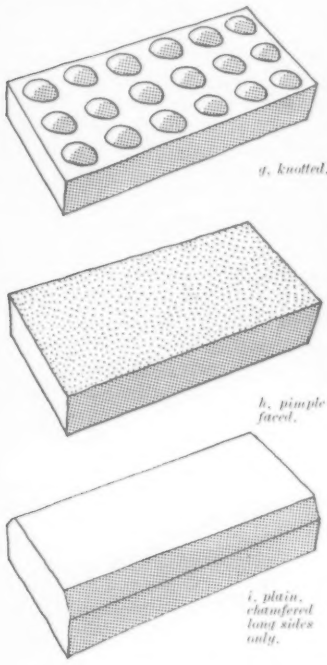
continued from page 144]



g, knotted.

h, pimple-faced.

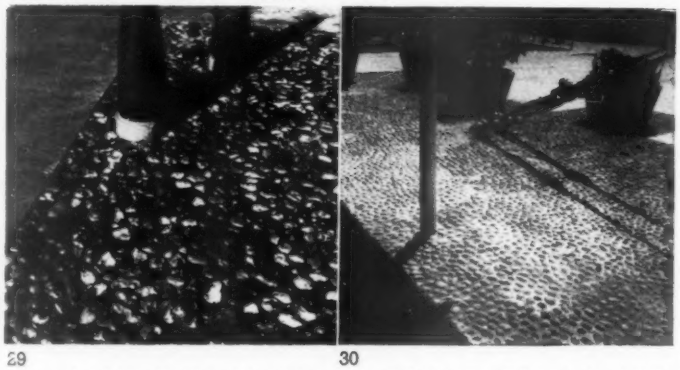
i, plain, chamfered long sides only.

All these bricks are intended to be laid in 'stretcher-bond', which is cheapest. The last example (i) gives a very powerful uni-directional pattern. Plain bricks can also be laid in herring-bone pattern, but this is more expensive.

tury and are very characteristic of this type of paving.

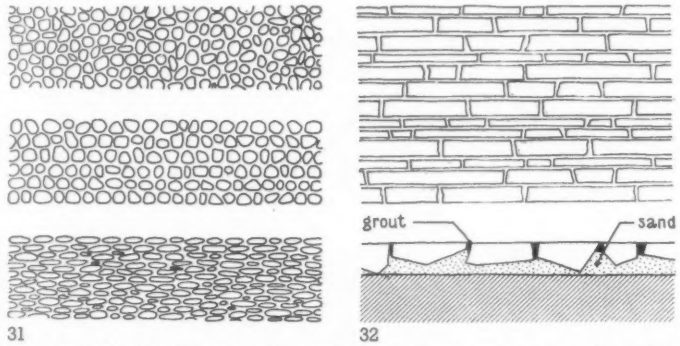
The bricks are laid on edge for vehicular traffic, but for ordinary pedestrian use may be bedded flat in

cobbles and random stones



29 30

29, round and irregular flint cobbles set in concrete, at the Cement and Concrete Association's research centre at Wexham Springs, Bucks. These cobbles are coloured brown, grey and white. The bollards are of concrete with an exposed aggregate finish. 30, very regular round cobbles on the terrace of the Royal Festival Hall.



31 32

31, patterns of laying cobbles: top, random; centre, coursed (for edgings—see also 1); bottom, flat cobbles laid parallel. 32, a method of using up broken flagstones (normally used as 'crazy paving'). The stones are bedded on edge in sand.

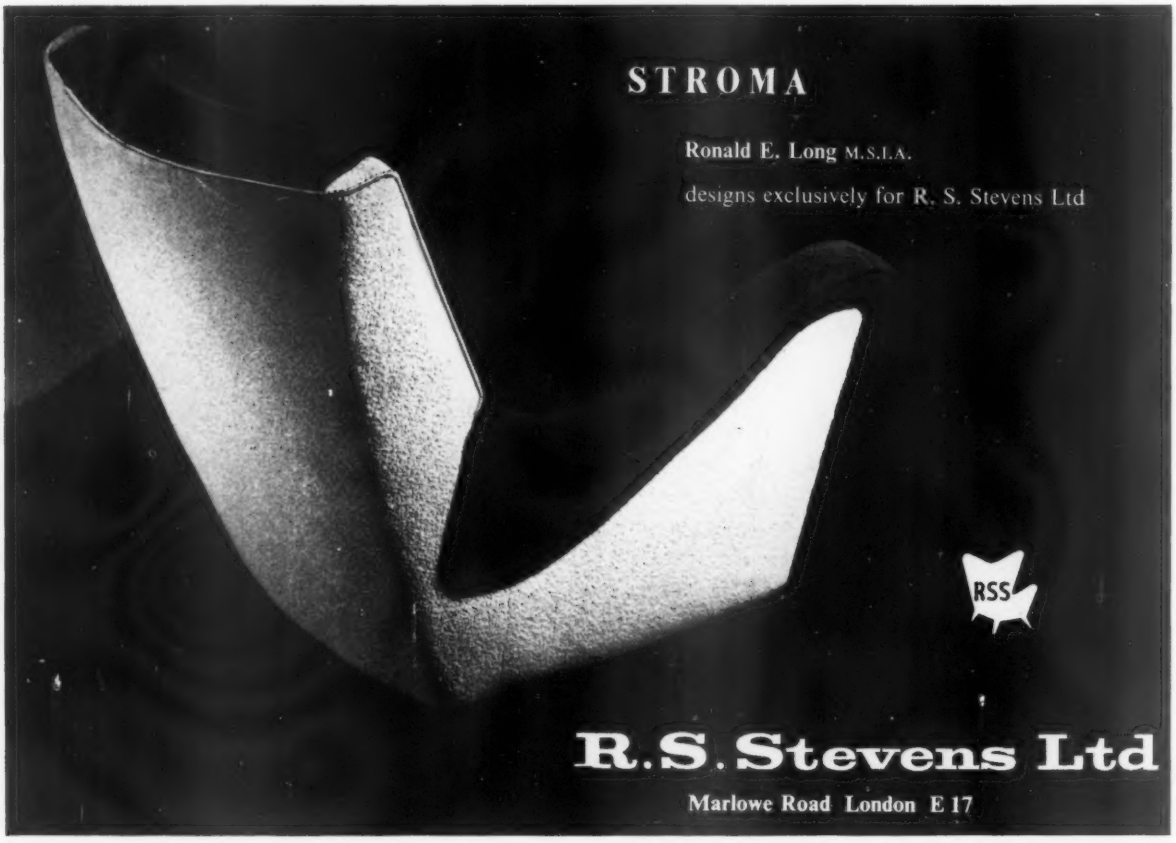
cement mortar on well-compacted ashes or clinker. The joints between bricks need not be filled or pointed, and it is interesting to note that paving bricks are made to the full 9 in. by 4½ in. size without allowance for jointing material.

Cobbles. Cobbles, which are fairly large, round or flattened flints, are also best included in this category. They may be obtained through firms which supply flint regularly to the pottery trade. One form of flint ('wash-mill') now obtainable is a by-product of the cement-making process, and is grey in colour with a pitted surface; natural cobbles are smooth and vary in colour through white, grey, and brown. Cobbles are sold graded in size, the largest size being about 4 in.

The cheapest form of bedding is to put down a 2-in. layer of sand, compacted, with a 2-in. layer of concrete (small aggregate) on top. The cobbles are then hand-pressed into this, the final thickness of concrete being about 4 in. with the cobbles protruding. They can be set in at random, or roughly coursed, 29, 30 and 31. They can also be 'knapped' to give a flatter surface and interesting texture, but this puts the cost up considerably. For vehicular traffic a concrete slab foundation is necessary.

Random stones on edge. This is another form of paving, 32, which can be fairly cheap under certain circumstances. It provides a way of using old broken flagstones or quarry waste to give a much better character than that of crazy paving, which is the more usual way. As the stones are laid with their natural bed vertical, they wear better than ordinary flags.

[Conclusion and acknowledgments on page 148



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continued from page 146]

The irregularity of the stones necessitates their being laid in sand, and so the vertical joints should be pointed up to discourage the seepage of water.

acknowledgments

Cement & Concrete Association, 9-18, 29

Tarmac Ltd. (Vinculum Division), 5-8, 27; Mono Concrete Ltd., 19; Noelite Ltd., 20; J. C. Edwards (Ruabon) Ltd., 21a, c; Candy & Co. Ltd., 21b, d; Everett's Brickworks Ltd., 22; William Thomas & Co. Ltd., 28a, b, c, d; Accrington Brick & Tile Co. Ltd., 28e, f, h; George Woolliscroft & Son Ltd., 28g, i; also the Natural Rubber Development Board, who supplied the rubber mattings for the products shown in 10-14.

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[continued on page 150

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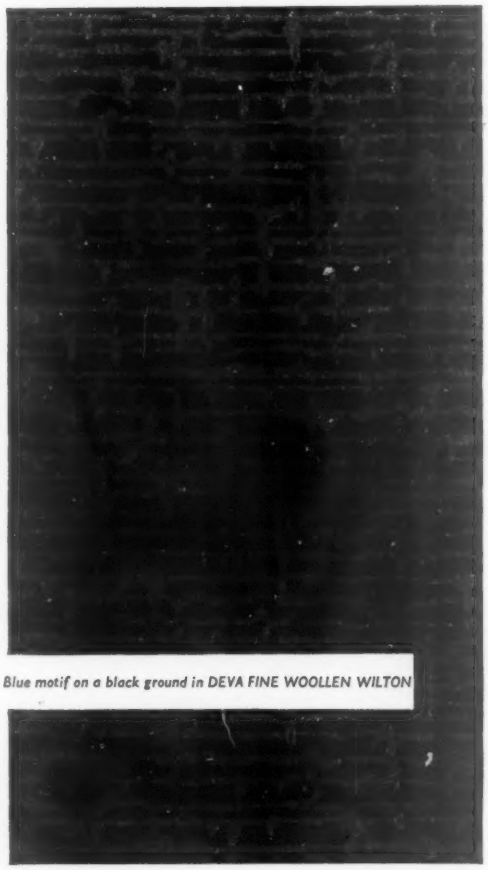

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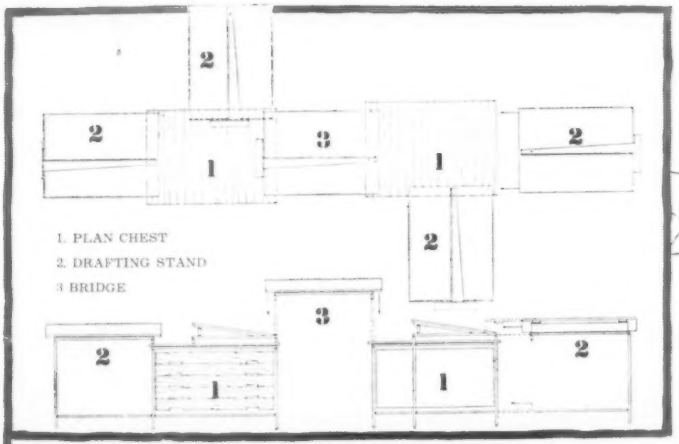
Newspaper Offices in West London. *Architect:* John G. Fryman. *General contractors:* J. M. Hill & Sons. *Sub-contractors: Terrazzo:* Art Pavements & Decorations Ltd. *General glazing:* Aygee Ltd. *Thermoplastic floor tiling:* R. W. Brooke & Co. *Roller shutters:* Dennison Kett & Co. *Wrought iron work:* S. W. Farmer & Son. *Electrical installation:* L. T. Hall Ltd. *Skylights:* Faulkner Greene & Co. *Decorations:* P. J. Hartel (London) Ltd. *Heating:* Chas. O. Kinnell & Co. *Asphalting:* F. J. Prater Asphalte Co. *Indasco flooring:* Veitchi Co. *Carving:* M. A. Tyrell *Mesh reinforcement:* B.R.C. Engineering Co. *Joinery and fittings:* J. Long & Sons (Bath). *Ironmongery:* Alfred G. Roberts Ltd. *Sanitary fittings:* Stitsons Sanitary Fittings Ltd. *Flush doors:* Gliksten Doors Ltd *Welsh blue state:* Bow Slate & Enamel Co. *Stock bricks:* Richard Parton Ltd. *Cement, bricks, etc.:* Erith & Co. *Sand and ballast:* Wm. Boyer & Sons.

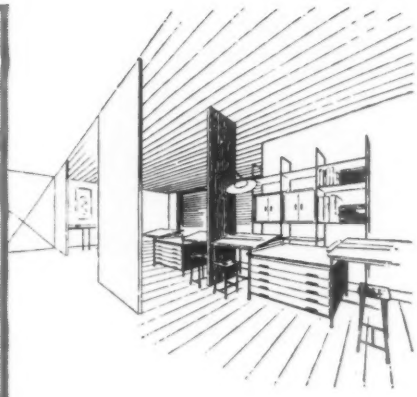
Staff College at Henley-on-Thames. *Architect:* Geddes Hyslop. *General contractor:* Y. J. Lovell & Son. *Sub-contractors: Acousti-Celotex tiles:* Horace W. Cullum & Co. *Asphalte flooring:* Limmer & Trinidad Lake Asphalte Co. *Balustrading:* C. E. Welstead Ltd. *Carlite plastering:* The Gotham Co. *Copper roofing:* Broderick Insulated Structures Ltd. *Cork flooring:* E. J. Elgood Ltd. *Curtain fabrics:* David Whitehead Ltd. *Distemper:* The Walpamur Co. *Electric installation:* Lowe & Oliver Ltd *Electric clock:* Gillett & Johnston Ltd. *Flush doors:* Samuel Elliott & Sons (Reading). *Heating and hot water installations:* Callas, Sons & May Ltd. *Ironmongery:* Yannedis & Co. *'Insulight' double glazing:* Pilkington Bros. Ltd. *Lighting fittings* Oswald Hollman Ltd. *Paint:* Hadfields (Merton) Ltd. *Plumbing* Richard J. Audrey Ltd. *Sanitary fittings:* John Bolding & Co. *Slates, cills, steps, etc.:* Bow Slate & Enamel Co. *Steel trusses and columns:* The Aston Construction Co. *Steel windows and doors:* C. E. Welstead Ltd. *Suspended floors:* The Kleine Co. *Terrazzo staircase:* Art Pavements & Decorations Ltd.

Corrections

British Paints Limited have asked us to state with reference to their advertisement for 'Superlative' paint, which appeared in our November issue, that the paint which has been withdrawn in its favour is 'Luxol 1' and *not* the 'Luxol' One Coat Enamel, recently introduced and publicized so extensively.

We regret that, owing to a printing error, in the advertisement on page 346 of the November issue, the architects' names were spelt incorrectly and should be Ryder and Yates, A/A.R.I.B.A.





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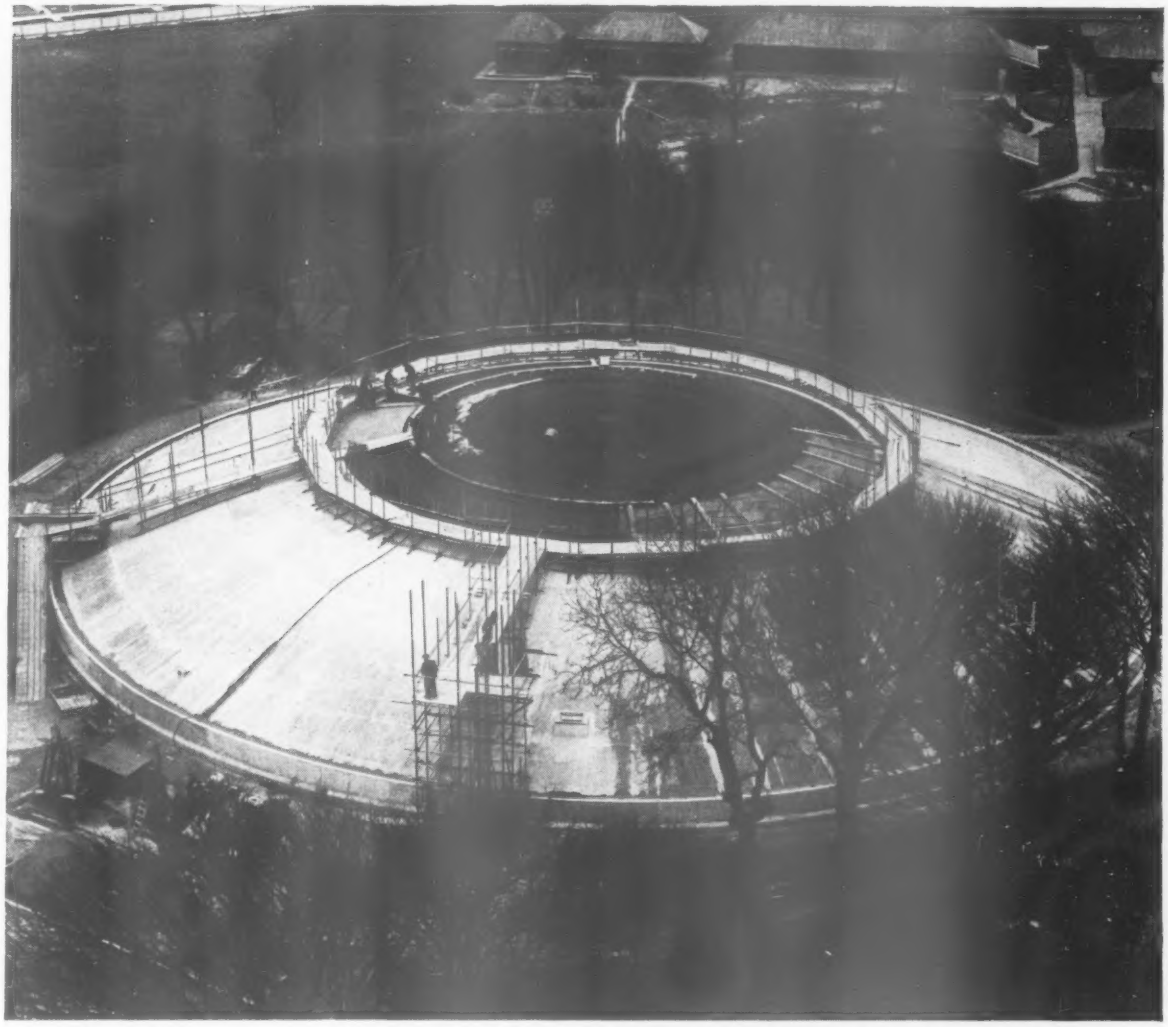

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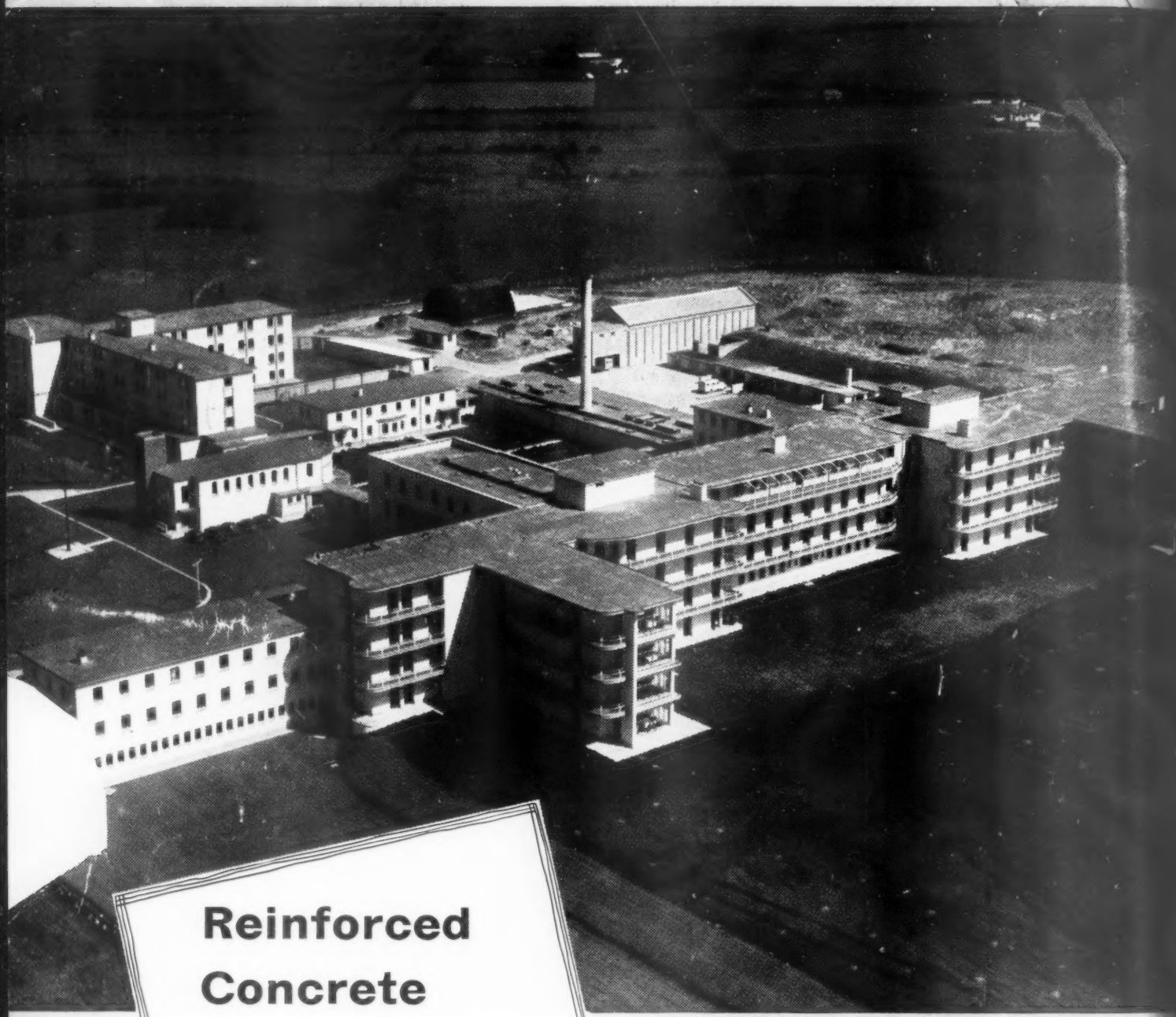

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